

# zenith



## Model Series:

## SERVICE MANUAL

Product Type: Consumer Color Television  
Chassis: CA  
Manual Series: CM151  
Manual Part #: 923-03396R1  
Model Line: B  
Product Year: 1999

B25A02Z	B27A24Z5	B36A30Z
B25A10Z	B27A24Z6	B36A30Z6
B25A10Z6	B27A24Z65	B36A30ZF
B25A10ZC	B27A24ZF	B36A34Z
B25A10ZC6	B27A24ZF5	B36A34Z6
B25A10ZCF	B27A30Z	B36A34ZF
B25A11Z	B27A30ZC	CB25A25Z
B25A11Z6	B27A30ZC5	CB25A25Z6
B25A11ZF	B27A30ZC6	CB27A10Z
B25A24Z	B27A30ZC65	CB27A10ZC
B25A24Z6	B27A30ZCF	LGB26A11ZM
B25A24ZF	B27A30ZCF5	LGB26A11ZM6
B25A30ZC	B27A34Z	LGB29A10ZM
B25A30ZCF	B27A34Z6	LGB29A10ZM5
B25A74R	B27A34ZF	LGB29A11ZM
B25A74LK	B27A74R	LGB29A11ZM5
B25A76R	B27A74R5	LGB29A13ZM
B27A10Z	B27A76R	LGB29A24ZM
B27A10Z5	B27A76R5	LGB29A24ZM5
B27A10Z6	B32A24Z	LGB29A30ZM
B27A10ZC	B32A24Z6	LGB29A30ZM5
B27A10ZC5	B32A24ZF	
B27A10ZC6	B32A30Z	
B27A10ZCF	B32A30Z6	
B27A11Z	B32A30ZF	
B27A11Z5	B32A34Z	
B27A11Z6	B32A34Z6	
B27A11Z65	B32A34ZF	
B27A11ZC	B36A24Z	
B27A11ZC5	B36A24Z6	
B27A24Z	B36A24ZF	

## REVISED EDITION

This revised edition replaces the original CA Service Manual (923-03396) and the first addendum (923-03396A1).

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# PRODUCT SAFETY SERVICING GUIDELINES FOR AUDIO-VIDEO PRODUCTS

## IMPORTANT SAFETY NOTICE

This manual was prepared for use only by properly trained audio-visual service technicians.

When servicing this product, under no circumstances should the original design be modified or altered without permission from Zenith Electronics Corporation. All components should be replaced only with types identical to those in the original circuit and their physical location, wiring and lead dress must conform to original layout upon completion of repairs.

Special components are also used to prevent x-radiation, shock and fire hazard. These components are indicated by the letter "x" included in their component designators and are required to maintain safe performance. No deviations are allowed without prior approval by Zenith Electronics Corporation.

Circuit diagrams may occasionally differ from the actual circuit used. This way, implementation of the latest safety and performance improvement changes into the set is not delayed until the new service literature is printed.

**CAUTION:** Do not attempt to modify this product in any way. Never perform customized installations without manufacturer's approval. Unauthorized modifications will not only void the warranty, but may lead to property damage or user injury.

Service work should be performed only after you are thoroughly familiar with these safety checks and servicing guidelines.

## GRAPHIC SYMBOLS



The exclamation point within an equilateral triangle is intended to alert the service personnel to important safety information in the service literature.



The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the service personnel to the presence of noninsulated "dangerous voltage" that may be of sufficient magnitude to constitute a risk of electric shock.



The pictorial representation of a fuse and its rating within an equilateral triangle is intended to convey to the service personnel the following fuse replacement caution notice:

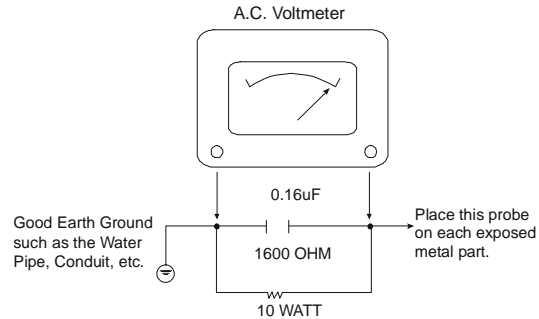
**CAUTION: FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ALL FUSES WITH THE SAME TYPE AND RATING AS MARKED NEAR EACH FUSE.**

## SERVICE INFORMATION

While servicing, use an isolation transformer for protection from AC line shock. After the original service problem has been corrected, make a check of the following:

## FIRE AND SHOCK HAZARD

1. Be sure that all components are positioned to avoid a possibility of adjacent component shorts. This is especially important on items transported to and from the repair shop.
2. Verify that all protective devices such as insulators, barriers, covers, shields, strain reliefs, power supply cords, and other hardware have been reinstalled per the original design. Be sure that the safety purpose of the polarized line plug has not been defeated.
3. Soldering must be inspected to discover possible cold solder joints, solder splashes, or sharp solder points. Be certain to remove all loose foreign particles.
4. Check for physical evidence of damage or deterioration to parts and components, for frayed leads or damaged insulation (including the AC cord), and replace if necessary.
5. No lead or component should touch a receiving tube or a resistor rated at 1 watt or more. Lead tension around protruding metal surfaces must be avoided.
6. After re-assembly of the set, always perform an AC leakage test on all exposed metallic parts of the cabinet (the channel selector knobs, antenna terminals, handle and screws) to be sure that set is safe to operate without danger of electrical shock. **DO NOT USE A LINE ISOLATION TRANSFORMER DURING THIS TEST.** Use an AC voltmeter having 5000 ohms per volt or more sensitivity in the following manner: Connect a 1500 ohm, 10 watt resistor, paralleled by a .15 mfd 150V AC type capacitor between a known good earth ground water pipe, conduit, etc.) and the exposed metallic parts, one at a time. Measure the AC voltage across the combination of 1500 ohm resistor and .15 mfd capacitor. Reverse the AC plug by using a non-polarized adaptor and repeat AC voltage measurements for each exposed metallic part. Voltage measured must not exceed 0.75 volts RMS. This corresponds to 0.5 milliamp AC. Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.



## X-RADIATION

1. Be sure procedures and instructions to all service personnel cover the subject of x-radiation. The only potential source of x-rays in current TV receivers is the picture tube. However, this tube does not emit x-rays when the HV is at the factory-specified level. The proper value is given in the applicable schematic. Operation at higher voltages may cause a failure of the picture tube or high-voltage supply and, under certain circumstances may produce radiation in excess of desirable levels.
2. Only factory-specified CRT anode connectors must be used.
3. It is essential that the service personnel have available an accurate and reliable high-voltage meter.
4. When the high-voltage circuitry is operating properly, there is no possibility of an x-radiation problem. Every time a color chassis is serviced, the brightness should be run up and down while monitoring the high voltage with a meter, to be certain that the high voltage does not exceed the specified value and that it is regulating correctly.
5. When troubleshooting and making test measurements in a product with a problem of excessively high voltage, avoid being unnecessarily close to the picture tube and the high voltage power supply. Do not operate the product longer than necessary to locate the cause of excessive voltage.
6. Refer to HV, B+, and shutdown adjustment procedures described in the appropriate schematics and diagrams (where used).

## IMPLOSION

1. All direct view picture tubes are equipped with an integral implosion protection system; take care to avoid damage during installation.
2. Use only the recommended factory replacement tubes.

## TIPS ON PROPER INSTALLATION

1. Never install any receiver in a closed-in recess, cubbyhole, or closely fitting shelf space over, or close to, a heat duct, or in the path of heated air flow.
2. Avoid conditions of high humidity such as: outdoor patio installations where dew is a factor, near steam radiators where steam leakage is a factor, etc.
3. Avoid placement where draperies may obstruct venting. The customer should also avoid the use of decorative scarves or other coverings that might obstruct ventilation.
4. Wall- and shelf-mounted installations using a commercial mounting kit must follow the factory-approved mounting instructions. A product mounted to a shelf or platform must retain its original feet (or the equivalent thickness in spacers) to provide adequate air flow across the bottom. Bolts or screws used for fasteners must not touch any parts or wiring. Perform leakage tests on customized installations.
5. Caution customers against mounting a product on a sloping shelf or in a tilted position, unless the receiver is properly secured.
6. A product on a roll-about cart should be stable in its mounting to the cart. Caution the customer on the hazards of trying to roll a cart with small casters across thresholds or deep pile carpets.
7. Caution customers against using a cart or stand that has not been listed by Underwriters Laboratories, Inc. for use with its specific model of television receiver or generically approved for use with TVs of the same or larger screen size.
8. Caution customers against using extension cords. Explain that a forest of extensions, sprouting from a single outlet, can lead to disastrous consequences to home and family.

# PRODUCT SAFETY SERVICING GUIDELINES FOR AUDIO-VIDEO PRODUCTS

## HIGH VOLTAGE AND X-RADIATION PROTECTION

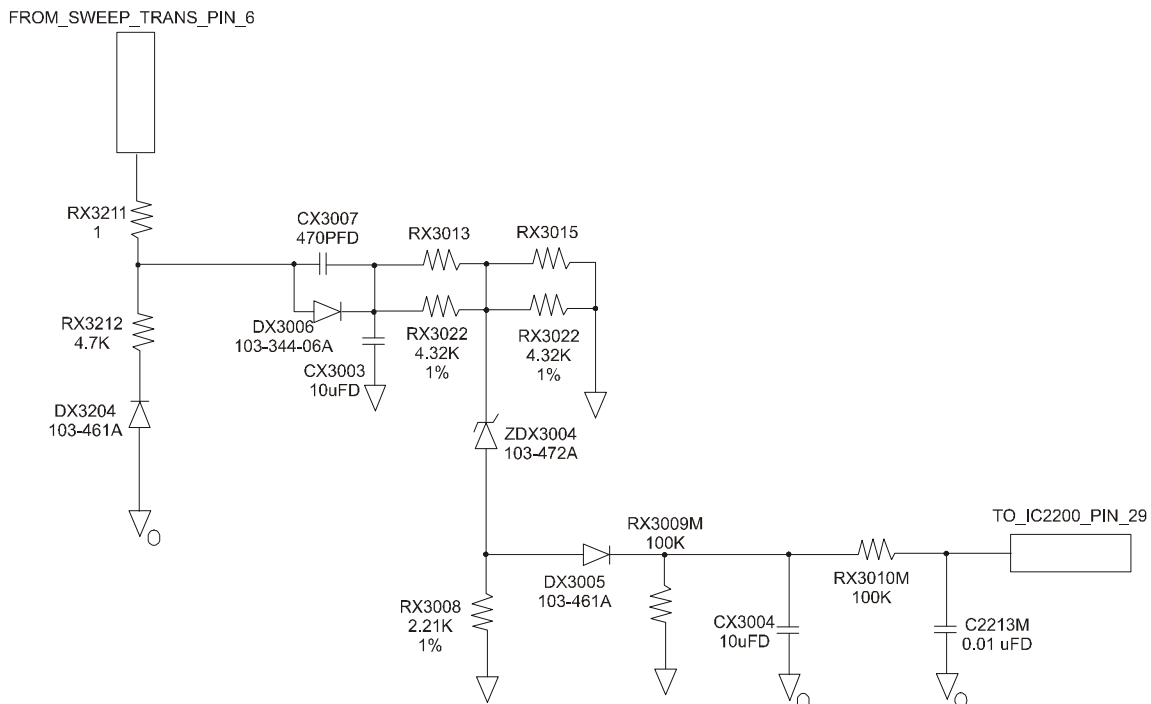
A potential source of x-rays is the picture tube, if the high voltage (HV) is out of specification. When the HV is operating properly, there is no x-radiation. For the CA chassis family, the HV has no adjustments. A HV shutdown circuit is used to prevent excessive HV and x-ray emissions.

## THEORY OF OPERATION (SHUTDOWN CIRCUIT)

This circuit basically monitors the sweep pulse voltage derived from the sweep transformer TX3204 pins 5 & 6. This voltage is rectified, and applied to a 12V zener diode ZDX3004. When the HV reaches its maximum allowed value (see drawing) the zener diode conducts, the voltage on pin 29 of the video processor (ICX2200) increases until it reaches the threshold voltage of 3.5 VDC, and shuts down the TV. If the shutdown circuit has operated, the microcontroller will prevent the TV from being turned on again, without first having to unplug the AC cord to reset the microcontroller.

**TIP:** Make a momentary short between the OUTPUT and GND of the IC6002 (RESET CIRCUIT) this will reset the microcontroller IC6000. Apply signal through the video generator or tune the TV color receiver to crosshatch pattern. Connect an accurate HV meter between the picture tube anode and chassis ground. Access Video Menu and adjust Brightness and Contrast controls for minimum screen luminance. Wait until, the Video Menu or display disappear. Read HV meter.

SCREEN SIZE	B+ VDC (0 BEAM)	HV NOM KV	HV MAX KV
<b>COMPONENT LEVEL REPAIR</b>			
25	124.0 +/- 2%	28	29
27	124.0 +/- 2%	27	29
<b>MODULE LEVEL REPAIR ONLY</b>			
32	128.5 +/- 2%	30	31.5
36	128.5 +/- 2%	30	31.5



## SAFETY CIRCUIT TEST PROCEDURE

Equipment required:

- Video Generator.
- HV DC meter (0 to 40 KV, high Z).
- External variable power supply (0V to 200 VDC @ 5Amps minimum).
- 1 Giga ohm, 5%, 2W film resistor.

Before turning the TV on, connect the HV meter's negative probe (-) to ground (DAG ground recommended) and the positive probe (+) in the anode of the CRT. Connect a 1 Giga Ohm resistor in parallel with the HV meter. Then connect the external power supply's negative output (-) to chassis ground, that is, the negative lead of B+ filter capacitor, CX3420. Turn on the TV. Apply a video signal or tune the TV to a raster pattern. Adjust the G2 potentiometer for minimum, and set the brightness and contrast levels to minimum. Now adjust the output voltage of the external power supply to 124 VDC for CA25V/27V or 130 VDC for CA32V/36V. Then start increasing the voltage on the external power supply until the TV shuts down, and read the HV on the meter just before the voltage starts dropping.

**Note:** The external power supply may require a diode for blocking voltage from the chassis power supply to the external power supply. The diode should be connected between the positive output of the external power and B+ of the chassis. The cathode should be facing the B+ of the chassis. The recommended diode is Part No. 103-00339-04A (400 V of VRRM @ 3 Amps of average rectified forward current).



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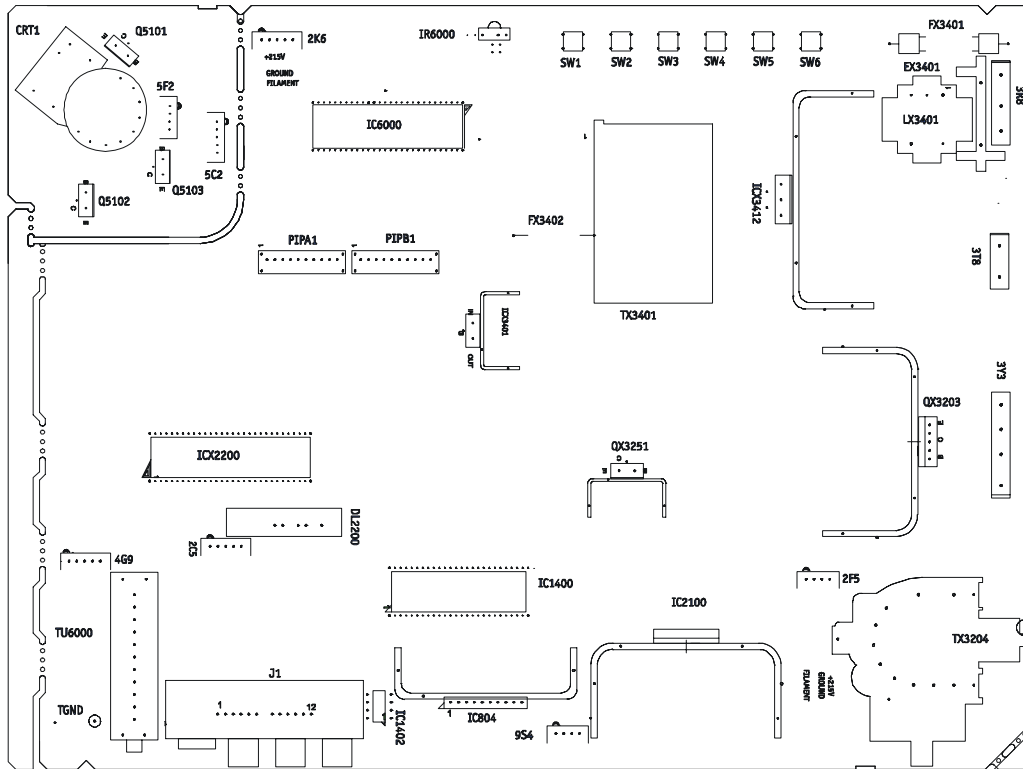
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# OVERVIEW

Below is detailed Model information on the CA Chassis series. All CA Models include the V-Chip.

<b>CA Chassis Model Information</b>								
MODEL	SCR	CABINET	AUDIO	PIP	JACKS	COMB	MICRO	OP GUIDE
<b>COMPONENT LEVEL REPAIR</b>								
B25A10Z	25	TableTop	Stereo	None	0	Yes	221-01384	206-03476
B25A10ZC	25	TableTop	Stereo	None	0	No	221-01384	206-03476
B25A11Z	25	TableTop	Stereo	None	3	No	221-01384	206-03477
B25A24Z	25	TableTop	MTS/SAP	None	6	Yes	221-01385	206-03479
B25A30ZC	25	TableTop	Stereo	1 Tuner	6	No	221-01385	206-03480
B25A74R	25	Console	MTS/SAP	None	6	Yes	221-01385	206-03450
B25A76R	25	Console	MTS/SAP	None	6	Yes	221-01385	206-03450
B27A11Z	27	TableTop	Stereo	None	3	No	221-01384	206-03477
B27A11ZC	27	TableTop	Stereo	None	3	No	221-01384	206-03477
B27A13Z	27	TableTop	Stereo	None	0	No	221-01384	206-03478
B27A24Z	27	TableTop	MTS/SAP	None	0	Yes	221-01385	206-03479
B27A30ZC	27	TableTop	Stereo	1 Tuner	6	No	221-01386	206-03480
B27A34Z	27	TableTop	MTS/SAP	1 Tuner	6	Yes	221-01387	206-03481
B27A74R	27	Console	MTS/SAP	None	6	Yes	221-01385	206-03372
B27A76R	27	Console	MTS/SAP	None	6	Yes	221-01385	206-03372
CB27A10Z	27	TableTop	Stereo	None	0	No	221-01384	206-03476
CB27A10ZC	27	TableTop	Stereo	None	0	No	221-01384	206-03476
LGB26A11ZM	25	TableTop	Stereo	None	3	No	221-01384	206-03494
LGB29A10ZM	27	TableTop	Stereo	None	0	No	221-01384	206-03495
LGB29A11ZM	27	TableTop	Stereo	None	3	No	221-01384	206-03498
LGB29A13ZM	27	TableTop	Stereo	None	0	No	221-01384	206-03498
LGB29A24ZM	27	TableTop	MTS/SAP	None	6	Yes	221-01385	206-03497
LGB29A30ZM	27	TableTop	Stereo	1 Tuner	3	No	221-01386	206-03496
<b>MODULE LEVEL REPAIR ONLY</b>								
B32A24Z	32	TableTop	MTS/SAP	None	6	Yes	221-01385	206-03479
B32A30Z	32	TableTop	Stereo	1 Tuner	3	No	221-01386	206-03480
B32A34Z	32	TableTop	MTS/SAP	1 Tuner	3	Yes	221-01387	206-03481
B36A24Z	36	TableTop	MTS/SAP	1 Tuner	6	No	221-01385	206-03479
B36A30Z	36	TableTop	Stereo	1 Tuner	3	No	221-01386	206-03480
B36A34Z	36	TableTop	MTS/SAP	1 Tuner	6	Yes	221-01387	206-03481

# OVERVIEW



## INTRODUCTION

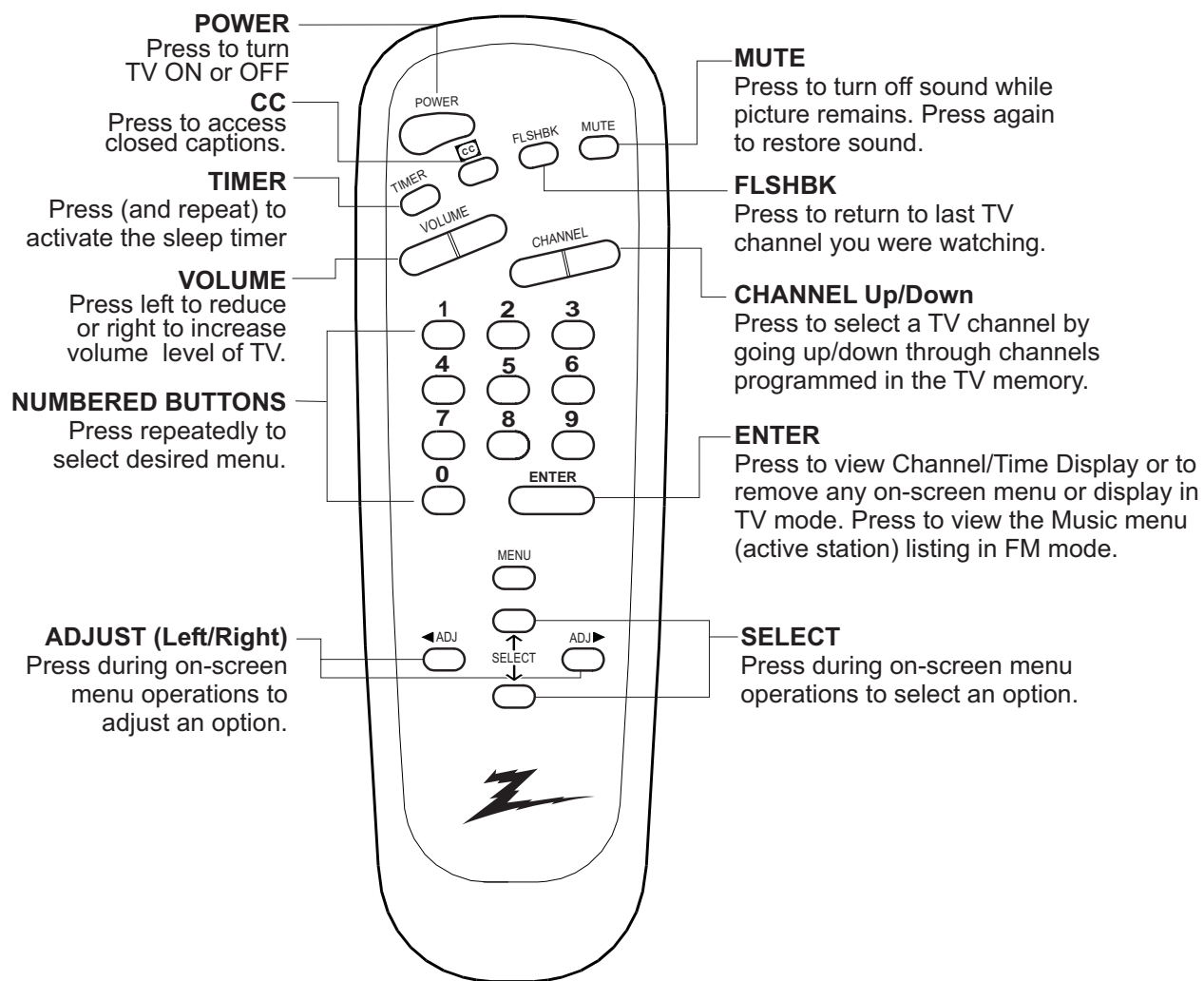
The CA series chassis has been developed for sentry 2 screen sizes 25" through 36" stereo models. The chassis is a single sided printed circuit board (PCB) very similar to the GA Chassis.

During the manufacturing process, the microprocessor will be programmed for any added features. Additional plug in boards with Jack Packs will be added to the chassis to accommodate the different features: Stereo, Mono, Video/Audio in, etc.

The ICX2200 integrated circuit (IC) handles all of the audio/video, sync, and sweep drive processing. The IC6000 is the main microprocessor and the IC6001 is the EAROM memory. The keyboard and IR detector are tied directly to the IC6000. The IC2100/IC201 handles the vertical sweep. At power on, voltages for the vertical and video output circuit are derived from this sweep circuit.



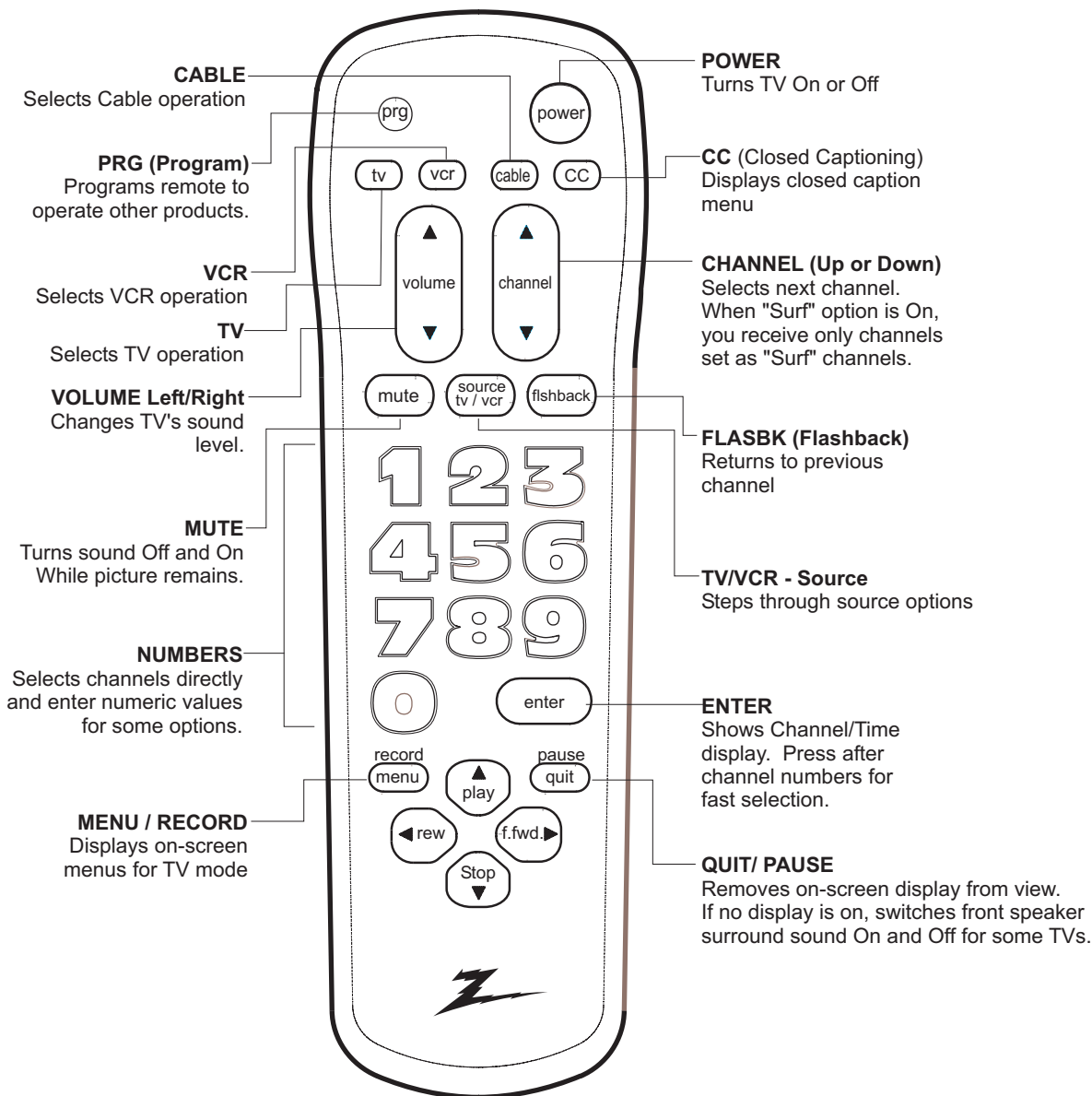
# SC3492Z MODEL REMOTE CONTROL



**SC3492**  
**124-00213-23**

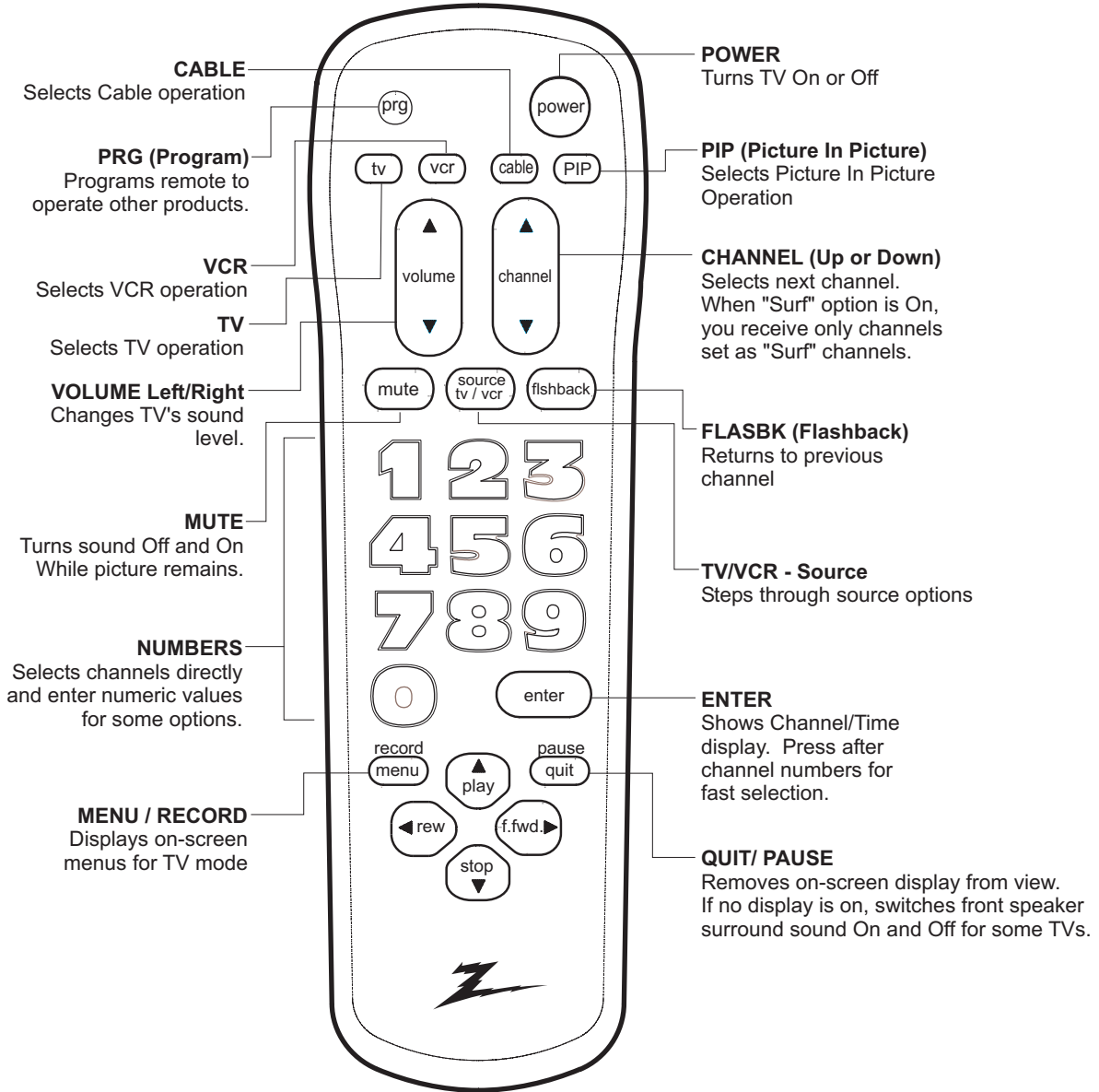
**Note:** Keys dedicated to VCR functions will still operate the VCR while the remote is in TV mode.

# MBR3345Z MODEL REMOTE CONTROL



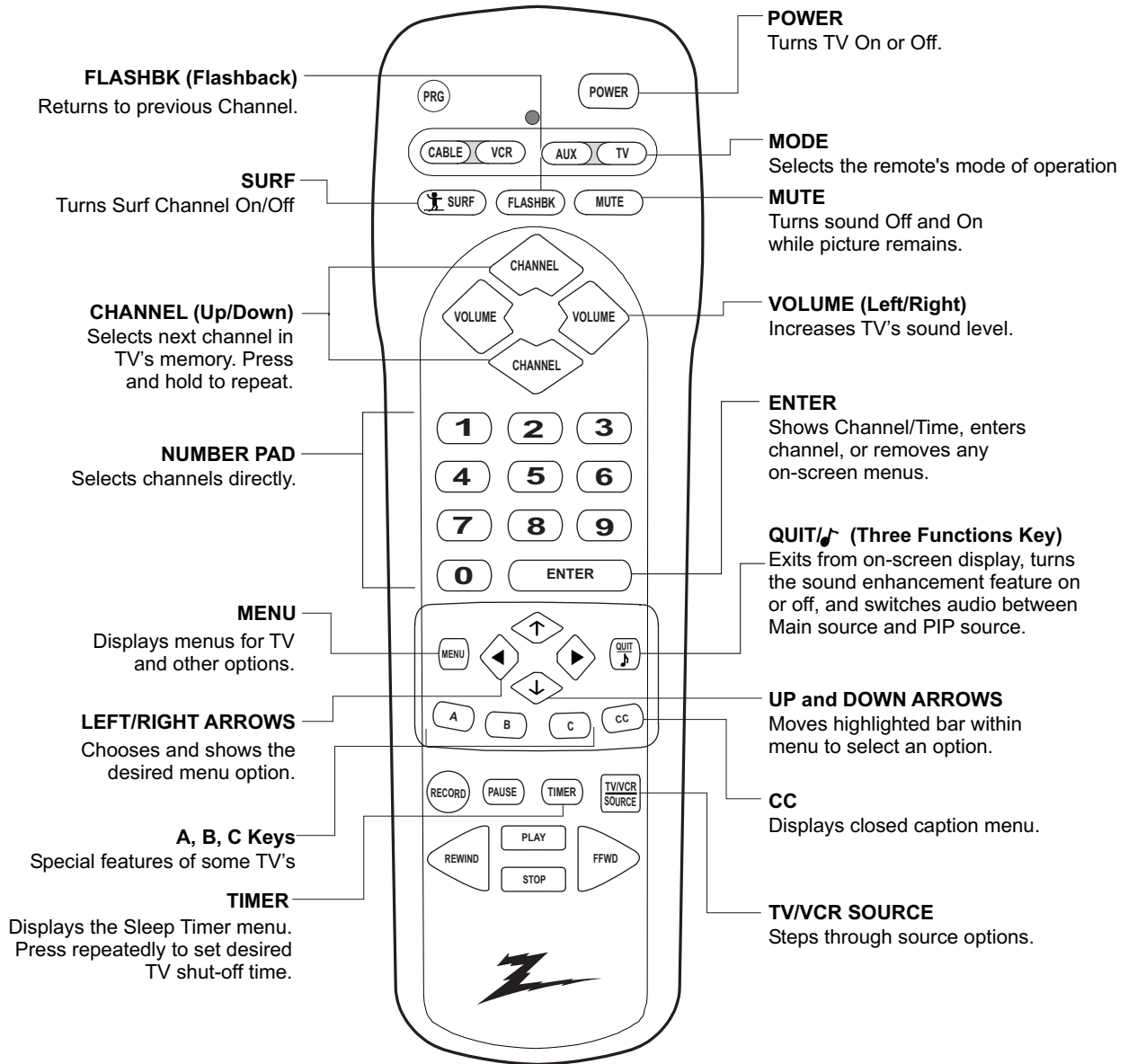
**MBR3345Z**  
**124-00229**

# MBR3346Z MODEL REMOTE CONTROL



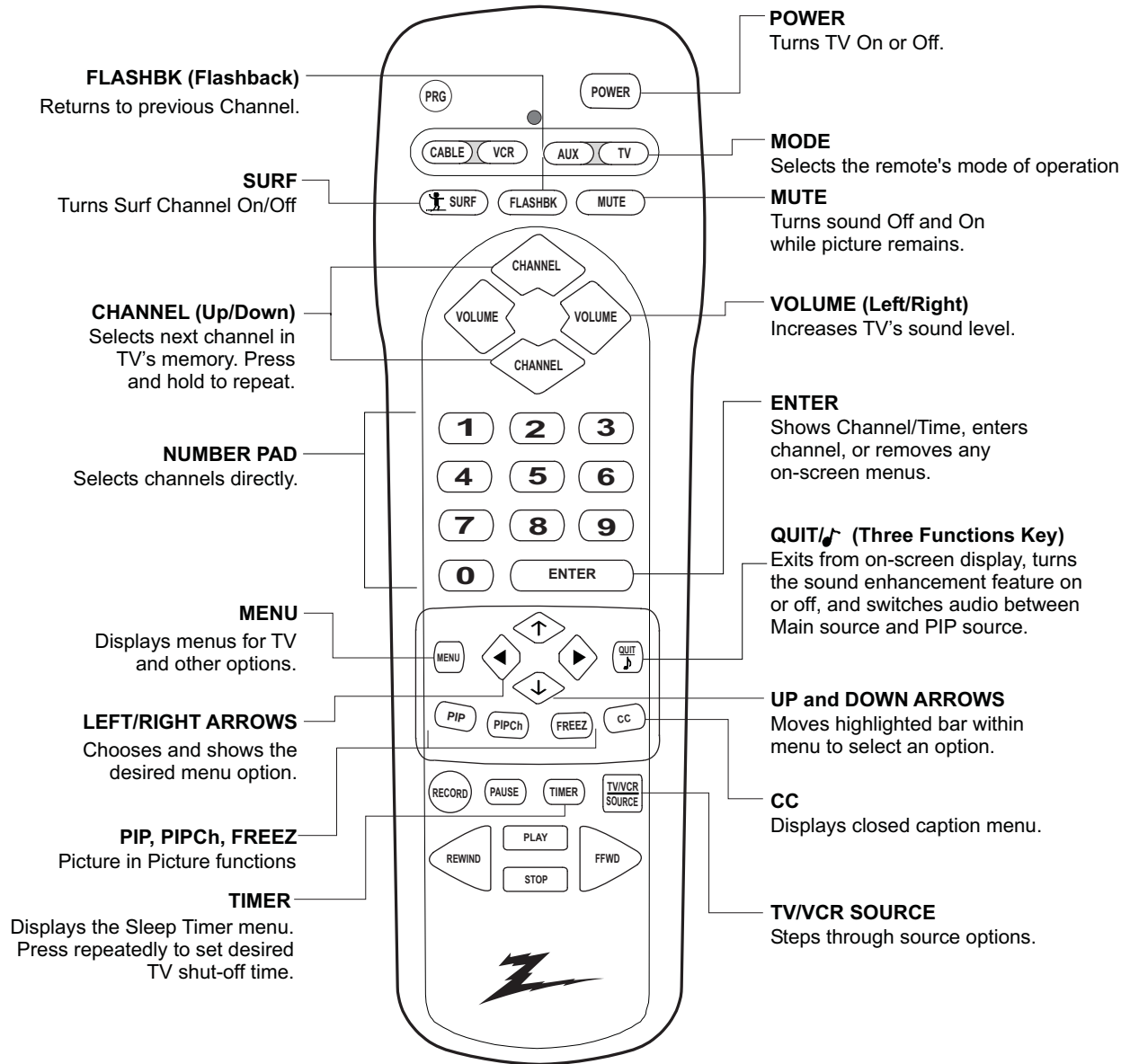
**MBR3346Z**  
**124-00229-01**

# MBR3447Z MODEL REMOTE CONTROL



**MBR3447Z**  
**124-00233**

# MBR3457Z MODEL REMOTE CONTROL



**MBR3457Z**  
**124-00233-01**

# REMOTE PROGRAMMING

## PROGRAMMING THE MBR3447 AND MBR3457Z REMOTES

If you're using Zenith products, the remote is already programmed for most common codes. For other brands, or if your remote fails to control your Zenith products, you'll have to program the remote.

After installing the batteries, follow these steps for each product:

1. Press and hold PRG using a blunt pointed object. Release PRG after indicator light turns on.
2. Press the device button to be programmed: CATV, VCR, AUX, or TV.
3. Enter 3-digit product code from chart on next page.
4. Press and release ENTER to save code.
5. Point remote at product and press POWER to test product operation. If it does not turn on, reprogram remote using a different code.
6. Write codes on the label inside battery compartment for future reference.

## AUTO FIND

If none of the codes in the code table operate your equipment, use Auto Find to search for the proper code.

1. Turn On the device you want to operate.
2. Press and hold PRG using a blunt pointed object. Release PRG after the indicator light turns on.
3. Press the device button to be programmed: CATV, VCR, AUX, or TV.
4. Enter "000", then press ENTER within two seconds. Auto Find is active when the indicator light flashes and remains lit.
5. Point the remote at the product.
6. Press and release POWER repeatedly, about once a second, until your product turns Off. The indicator light turns Off when you press POWER, and On when you release it.
7. Press ENTER immediately to save the code. The indicator light flashes to indicate the code has been saved.
8. Press POWER to turn On your product.
9. Test your product. If the remote fails to operate the functions you use most often, use Auto Find again to search for a better code. (Auto Find resumes its search after the last code that was entered and saved in step 7).

**NOTE:** *If the indicator light stays on as you press POWER, Auto Find has tried all of the codes. If the product you want to control has not turned off, your remote will not work with that product.*

*To cancel Auto Find, press PRG at any time during Auto Find.*

## CABLE BOX

These remotes can control cable/converter box volume and muting if available on your equipment.

1. Program the cable/converter box normally.
2. After programming the cable/converter box, Press and hold PRG again using a blunt pointed object. Release PRG after indicator light turns on.
3. Press and release the cable device button.
4. This time, enter the special code 3-9-9 instead of the product code.
5. Press and release ENTER to save.

## VOLUME OVERRIDE

These remotes can override TV, VCR, or Video Disk Player volume functions with an amplifier's volume and muting.

1. Program the amplifier normally.
2. After programming the amplifier, Press and hold PRG again using a blunt pointed object. Release PRG after indicator light turns on.
3. Press and release the device button whose volume control is to be replaced by the amplifier volume control. For example, pressing TV will operate the amplifier's volume while the remote is in TV mode.
4. This time, enter the special code 4-9-9 instead of the product code.
5. Press and release ENTER to save.

## SPECIAL FEATURES

### AUX+1, AUX+2, AND AUX+3 Capability

These remotes can control up to seven devices. If the remote has been programmed for four components using the TV, VCR, CABLE and AUX keys, you may also program it for up to three additional using AUX+1, AUX+2 and AUX+3.

To Program AUX+1, AUX+2, AND AUX+3

1. Locate three-digit code for product in code table.
2. Press and hold PRG until indicator lights up.
3. Press AUX and "1" simultaneously to select AUX+1.
4. Enter three-digit code, then press ENTER. Indicator light should flash, then turn off to indicate code is accepted. If the light stays on, repeat steps 3 and 4 or try a different code.
5. Repeat steps 2-4 for AUX+2 and AUX+3.
6. Write codes on the label inside battery compartment for future reference. Hold down AUX and press 1, 2, or 3 to access AUX+1. +2 or +3 mode.

# PROGRAMMING CODES

TV'S	
Admiral	116, 121, 130, 133
Adventura TV/VCR	154
Akai	104
Amark	103, 146
AOC	104
Bell & Howell	121
Broksonic	131, 136, 182
Candle	139
Centurion	119
Citizen	121, 139
Contec	141
Coronado	103
Crown	103
Curtis Mathis	116, 119, 121
Daewoo	149, 159
Daytron	119
Elektra	121
Emerson	103, 104, 123, 124, 131, 136, 145, 176
Fisher	109, 118
General Electric	106, 107, 114, 116, 117, 161
Goldstar	103, 104, 119, 147, 184
Hitachi	102, 103, 129, 163, 121
Inteq	101
J.C. Penney	104, 110, 114, 117, 119
JVC	125, 132, 164
KMC	103
KTV	103, 104, 138
Kurazai	121
LG	184
Lodgenet	121
Logik	121
LXI	133, 137
Magnavox	103, 112, 113, 117, 119, 127, 128, 130, 139, 165
Majestic	121
Marantz	104, 120, 155
Megatron	146
Memorex	121
MGA/Mitsubishi	104, 119, 120, 130, 133, 140, 155, 169, 178
Montgomery Ward	103, 104, 105, 113, 114, 119, 121, 130, 133
NEC	104, 119
Orion	176
Panasonic	106, 107, 160, 166
Philco	103, 104, 112, 113, 139
Philips	112, 113
Pioneer	135
Portland	103
ProScan	116, 157, 162, 167
Quasar	106, 107
RCA	104, 116, 126, 157, 161, 162, 167, 168
Realistic	105, 123, 124
Sampo	119
Samsung	103, 119, 134, 141
Sanyo	108, 109, 118
Scott	119, 124
Sears	103, 108, 109, 110, 111, 118, 134
Sharp	103, 105, 122, 133, 137, 156, 169
Signature 2000	103, 104, 105, 113, 114, 119, 121, 130, 133
Sony	115, 143, 151, 170
Soundesign	139
Sylvania	112, 113, 117, 119, 127, 128, 139
Tatung	106
Teknika	103, 112, 121, 124, 139
Telerent	103, 121
Toshiba	110, 111, 134, 171
XR1000	121, 154
Yorx	119
Zenith	101, 142, 149, 177
Zenith Star Sight	175

VCRS	
Admiral	208, 261
Adventura	231
Aiwa	231
Akai	223, 238, 241
Audio	
Dynamics	202, 206, 218, 247
Bell & Howell	206, 247
Broksonic	221, 226, 233, 250, 255
Canon	214
Citizen	209
Craig	212
Criterion	239
Curtis Mathis	214, 259
Daewoo	244, 246, 248, 254
Daytron	236, 246
DBX	202, 218
Emerson	203, 209, 221, 223, 226, 233, 235, 243, 250
Fisher	211, 212, 213, 247
Funai	231
General Electric	214, 216, 220
Goldstar	209, 273
Go Video	256, 262, 263, 275
Hitachi	215, 231, 257
Instant Replay	214, 227
Inteq	273
J.C. Penney	214, 215, 218, 227
JVC	202, 224, 225, 258, 263
Kenwood	202
Logik	239
LXI	209, 231
Magnavox	207, 214, 231
Marantz	207, 218
Marta	209
Memorex	206, 212, 214, 231
Mitsubishi	204, 222, 252, 264
Montgomery Ward	208, 214, 216, 219, 231, 249
Multi Tech	239
NEC	202, 218
Optimus	208, 209, 259
Orion	233, 250
Panasonic	214, 251, 259
Pentax	215
Philco	207, 214
Philips	207, 214, 227
Pioneer	210, 215
Portland	246
Pro Scan	216, 260
Quasar	214, 259
RCA	215, 216, 220, 227, 240, 242, 244, 260
Realistic	206, 208, 212, 214, 231
Samsung	220, 230, 238
Sansui	239
Sanyo	206, 212, 247
Scott	204, 205, 233, 243
Sears	206, 209, 211, 212, 215
Sharp	208, 261, 272
Shintom	239
Signature 2000	208, 214, 216, 219, 231, 249, 261
Sony	217, 232, 237, 274
Sylvania	207, 214, 227
Symphonic	231
Tashiko	209
Tatung	202
Teac	202, 231
Teknika	209, 234
Toshiba	205, 215, 271
XR1000	239
Vector Research	204, 218
Yamaha	202, 218
Zenith	201, 224, 225, 229, 237

VCR/TVS	
Daewoo	148
Emerson	158
Funai	154
Goldstar	153
Hitachi	154
LXI	154
Magnavox	173, 181
Panasonic	174
RCA	179
Samsung	180
Sansui	182
Sharp	179
Sylvania	154
Symphonic	154
Zenith	153, 154, 172

CABLE/SATELLITE Set-Ups	
Allegro	358, 362
Allegro A/B Switch	361
Amerkast	383
Dish Network	389
Gemini	305, 331, 338
General Electric	367
General Instrument	305, 306
Hamlin	302, 303, 345, 365, 366
Jerrold	304, 307, 308, 309, 310, 318, 360, 363
Kale Vision	335
Macom	314, 321
Magnavox	334
NSC	335, 339, 368, 369, 370
Oak	311, 332, 342
Panasonic	313, 320
Paragon	333
Philips	347, 350, 352, 354, 355
Pioneer	315, 343
Primstar	388
Radio Shack	362
RCA DSS	373, 394
Regal	366
Regency	329
Samsung	335
Scientific Atlanta	316, 323, 336, 364
Sony DSS	387
Sprucer	313
Standard Comp	335
Stargate	379
Texscan	339, 356, 371
Tocom	317, 318, 346
Toshiba DSS	391
Unika	348, 362
United Satellite	344
Universal	358, 362
Vid Tech	340
Video Way	349
Viewstar	354, 355, 372
Zenith	301, 353
Zenith HD Set Top	385
Zenith N/C Set Top	384, 395
Zenith Satellite	312, 328, 330, 351

LASER DISC	
Denon	402, 403
Mitsubishi	403
Pioneer	402, 403, 405
Sanyo	401
Sony	404
Zenith	401

AUDIO TAPE DECKS	
Denon	455
Harman/Kardon	456
JVC	457
Kenwood	450
Onkyo	458
Philips DCC	454
Pioneer	451, 478
Sony	452
Technics	454, 497
Yamaha	453

AUDIO CD PLAYERS	
Akai	409, 424
Carver	510
Crown	410
Denon	411
Fisher	412, 438
Goldstar	460
Harman/ Kardon	413
JVC	415
Kenwood	412, 416, 417, 441
Magnavox	421, 422, 433, 434
Mitsubishi	423, 424
NAD	425, 426, 447
Nakamichi	427, 428
NEC	429
Onkyo	430
Panasonic	431, 432
Philips	421, 433, 434
Pioneer	431, 435
Quasar	432
Radio Shack	431, 436, 439, 440, 441
RCA	437
Sanyo	438, 439
Scott	440
Sharp	441, 442
Sony	443, 444, 445
Soundesign	461, 498, 501, 502
Sylvania	433
Teac	446
Technics	432, 459
Toshiba	447
Yamaha	448
Zenith	460, 461, 498, 501, 502

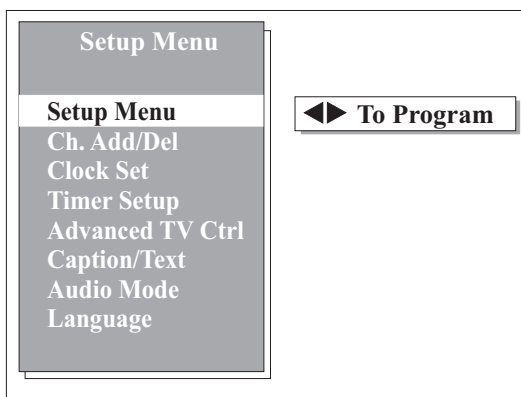
AUDIO TUNERS AND AMPLIFIERS	
Denon	462, 463
Fisher	464
Goldstar	460
Harman Kardon	465
JVC	466
Kenwood	468, 469, 506
Marantz	472, 503
Onkyo	473
Philips	475, 476
Pioneer	477, 478, 479
Radio Shack	487, 488
Realistic	480
Sanyo	481
Scott	482
Sharp	483
Sherwood	487, 488
Sony	489, 490, 491, 492
Soundesign	461, 498, 501, 502
Teac	494, 495
Technics	497, 509, 567,
Yamaha	496
Zenith	460, 461, 498, 501, 502, 504, 505

DVD PLAYERS	
Denon	523, 524
Marantz	521
Mitsubishi	525
Panasonic	523, 524
Philips/Magnavox	521
Pioneer	527
Proscan	526
RCA	526
Sony	522
Toshiba	521
Zenith	521

# USER MENUS 221-1384

## SETUP MENU

The **Setup Menu** for CA chassis with its options for each item are described as follows:



## AUTO PROGRAM

The Auto Program feature automatically searches for all available channels and marks them as *Added* so that they may be accessed via the channel Up/Down key.

In the Auto Program screen:

- A message at the top displays "Auto Program" to let the customer know that they have entered the Auto Program feature.
- A line at the bottom of the screen shows that the Up/Down and Left/Right Arrow keys are used for Auto Program selections.
- The current RF input type (Off Air Antenna or Cable TV) is highlighted. Use the Up/Down Arrow keys to change the RF input type.

To start the Auto Program, press the Left/Right Arrow key. If the Cable TV input type is selected, the Auto Program routine will determine what type of cable system is present.

### Notes:

- *Auto program clears all Surfing channels which were added.*
- *While searching for channels, all keys except for the Power key are disabled. This prevents an incomplete Auto Program procedure.*
- *Running the Auto Program will clear the factory mode, if it was active. This happens at the end of the Auto Program.*
- *If the Auto Program line in the Setup Menu is 'red', this indicates that the module did not pass one of the test equipment's tests.*
- *If no channels are found then the following message will appear: "Make sure that the cable/ant. is connected, and try again."*

## CHANNEL/ADD/DEL

After running the Auto Program, all channels found by the Auto Program feature will be marked *Added*. However, some of these channels may be scrambled, or undesired by the customer. This feature allows the customer to selectively mark any channel as *Deleted* or *Added*.

To change the status of a channel from *Added* to *Deleted* or vice versa, press the Left/Right Arrow key.

To change the channel while adding or deleting channels, use the Channel Up/Down keys, or press the desired channel digits, followed by 'Enter'. If Channel Up/Down is pressed, the next or previous channel which was marked *Added* will appear. If only one channel is present, to change the channel the customer must use the digit key pad to select a channel.

## CLOCK SET

This Setup Menu Line allows the customer to set the clock time and date.

When no time is set, the display shows: —:— —

There are two ways to set the time:

1. Direct Entry (preferred) Use the digit keys, followed by 'Enter' or Select Up/Down.
2. Left/Right Arrow keys

When the first digit is introduced, the display shows:

—:—d AM < Timer

When the time is set, the display shows:

hh:mm AM < Timer

where:

d = digit, mm = minutes hh = hours

Entering an invalid time ("0" for example) will result in the clearing of the current time (—:— —). Also when only one digit is pressed and no other is pressed in an interval of seven seconds, the current time will be cleared.

**Note:** *When the first digit is pressed (or the Left/Right Arrow is pressed), a **TIMER** icon appears on the right side of the AM/PM status.*

## TIMER MENU

The Timer Setup line allows entry into the Timer Menu.

This feature consists of three menu lines: "On Time", "Off Time", and "On/Off Timer". This feature allows the set to turn on and off at the times specified in "On Time" and "Off Time". The "On/Off Timer" turns the feature on and off. Setting the "On Time" or the "Off Time" is identical to the Clock Set feature in the Setup Menu.



# USER MENUS 221-1384 (continued)

## SLEEP TIMER

To set the Sleep Timer use the Left/Right Arrow keys to select a time. Then use the Up/Down keys to select the time desired for the sleep timer to count.

## ON TIME

The On Time and can be set the same way as Clock Set.

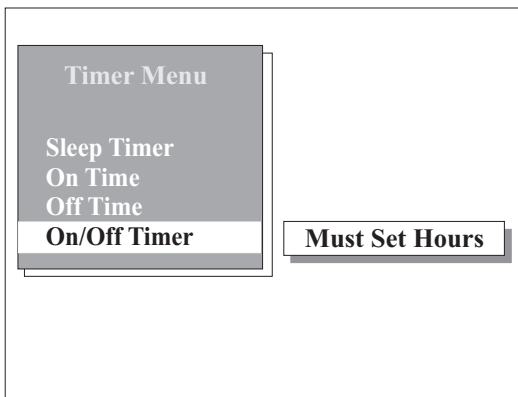
## OFF TIME

The Off Time and can be set the same way as Clock Set.

## ON/OFF TIME

The On-Off Timer can be selected using the Left/Right keys.

Pressing the TIMER key will increment the Sleep timer to 0:10 and restore all other key functions.



**Note:** Both the On Time and the Off Time must be specified, before turning on the "On/Off Timer"—otherwise an error message ("Must Set On/Off") will be displayed on the On/Off Timer line.

## ADVANCED TV CONTROL MENU

The Advanced TV Ctrl line allows entry into the Advanced TV Control Menu.

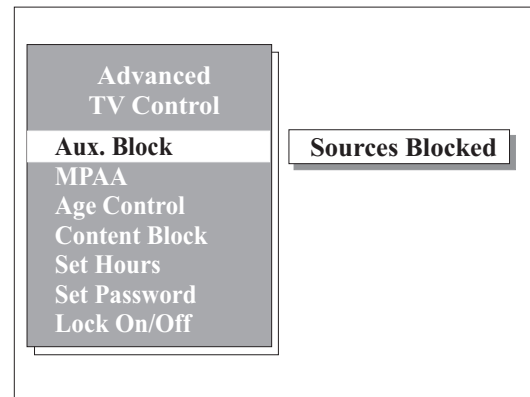
## BLOCK CHANNEL

To Block or Unblock the current channel, press the Left/Right Arrow key.

To change the channel while Blocking or Unblocking channels, use the Channel Up/Down keys, or press the desired channel digits, followed by ENTER. (If Channel Up/Down is pressed, the next or previous channel which was marked *Added* will appear.)

## AUXILIARY BLOCK

To Block or Unblock the sources, press the Left/Right Arrow key.



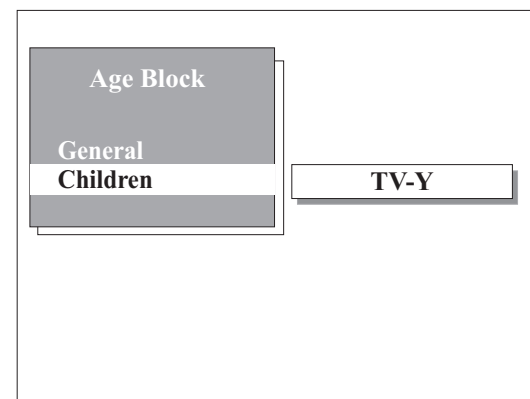
The SOURCE key may be used to view the video source. The following menu appears:

## MPAA

The MPAA selector allows the customer to select either to have the channel Unblocked, From G, From PG, From PG-13, From R, From NC-17, or X.

## AGE BLOCK

Use the Left/Right Arrow keys to select the Age Block Menu.



## GENERAL BLOCK

To block channels for a general age, select either: Unblocked, TV-G, TV-PG, TV-14 or TV-MA.

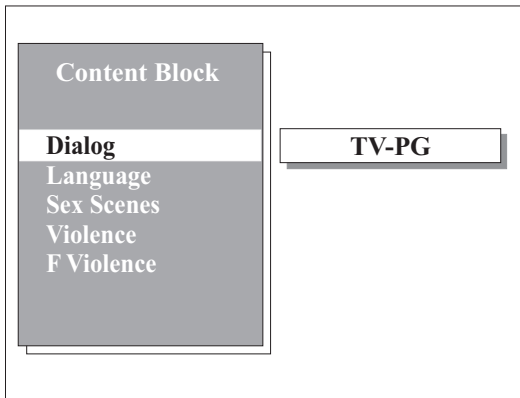
## CHILDREN BLOCK

To block channels for children, select either: Unblocked, TV-Y or TV-Y7.

# USER MENUS 221-1384 (continued)

## CONTENT BLOCK

Use the Left/Right Arrow keys to select the Content Block Menu.



## DIALOG BLOCK

To block the dialog, use the Left/Right Arrow keys to select either: Unblocked, TV-PG or TV-14 as shown below.

## LANGUAGE

To block the dialog, use the Left/Right Arrow keys to select either: Unblocked, TV-PG,TV-14, or TV-MA.

## SEX SCENES BLOCK

To block the Sex Scenes, use the Left/Right Arrow keys to select either: Unblocked, TV-PG,TV-14, or TV-MA as shown below.

## VIOLENCE BLOCK

To block the Violence, use the Left/Right Arrow keys to select either: Unblocked, TV-PG,TV-14, or TV-MA as shown below.

## F VIOLENCE BLOCK

To block the FViolence, use the Left/Right Arrow keys to select either: Unblocked, TV-PG,TV-14, or TV-MA as shown below.

## SET HOURS

Use the Left/Right Arrow keys to adjust the number of hours the Parental Control feature will be active. The valid hour range is 1 to 99.

## SET PASSWORD

Press the Left/Right Arrow key to allow Password entry.

## TO ENTER PASSWORD

The software accepts four-digit codes only. A password must be entered by the customer.

## REPEAT PASSWORD

After a four-digit code has been entered, the software requires the customer to reenter the same four-digit code.

## PASSWORD NOT ACCEPTED

If an invalid code is entered, or the two codes do not match, an error message ("Not Accepted!") will appear.

This error message also appears when no code is entered for the password or if only one digit is entered and no other digit has been entered.

## LOCK ON/OFF

This item turns the Advanced TV feature On / Off. The Adv. TV Ctrl. feature can only be turned on if the hours > 0, and a password has been set. Otherwise the Lock On/Off line will display either of the following error messages: ("Must Set Hours") or ("Must Set Password.").

## REENTERING ADVANCED TV CONTROL MENU

If the Parental Control feature has been activated, the software will not allow immediately entry into the Advanced TV Control Menu. Instead, it will prompt for the correct password. If the correct password is entered, the Advanced TV Control menu will appear, with the highlighted item "Lock On/Off", which assumes that the customer most likely wants to turn the feature off. If an incorrect password is entered, an error message ("Not Accepted!") appears, and will not disappear until 5 seconds has elapsed. This extended time provision increases the amount of time necessary for a child to "crack" the password.

- The Advanced TV Control menu will remain up for 10 seconds after the last key press.
- The QUIT key may be pressed to remove the PC menu.
- Entry into the Factory Menu will immediately turn off the PC feature
- The PC Hours and Password will be cleared upon exit of the Adv. TV Ctrl menu (unless the Adv. TV Ctrl feature has been turned on.)

## CAPTION/TEXT

This feature allows the customer to activate or deactivate Captions or Text.

Pressing the Left/Right Arrow keys sequentially through each of the following Caption/Text options.

Caption 1	Caption 2	Caption 3	Caption 4
Text 1	Text 2	Text 3	Text 4

When the Text option is selected and a text box appears, if the CC key is pressed, the Caption box that allows setting to On, Caption When Muted or Off will appear.

# USER MENUS 221-1384 (continued)

When captions are being displayed, if one of the Volume Up/Down keys is pressed, the volume bar will not appear.

When the Captions are not activated and the CC key is pressed, the Caption Box will appear, that allows choose On, Caption When Muted or Off.

## AUDIO MODE

There are two audio modes available: Stereo and Mono.

## LANGUAGE

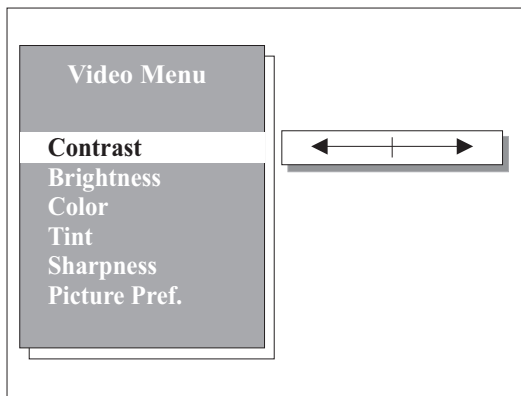
This feature allows the customer to change the menu language to English, Spanish or French by pressing the Left/Right Arrow keys.

## VIDEO MENU

All menu items are adjusted with the Left/Right Arrow keys. Each selection of the video menu is shown below.

## CONTRAST

Contrast adjustment has 64 steps ( 0 to 63 ).



## BRIGHTNESS

The brightness value sent to the video processor is (RfBrt+Customer Brightness) if the source is the RF source, or (AuxBrt + Customer Brightness) if the source is the AUX source. RfBrt and AuxBrt appear in the factory menu.

## COLOR

Color adjustment also has 64 steps ( 0 to 63 ).

## TINT

Tint Adjustment has 64 steps ( 0 to 63 ). A center mark indicates step 29.

## SHARPNESS

Sharpness adjustment has 64 steps ( 0 to 63 ).

## PICTURE PREF

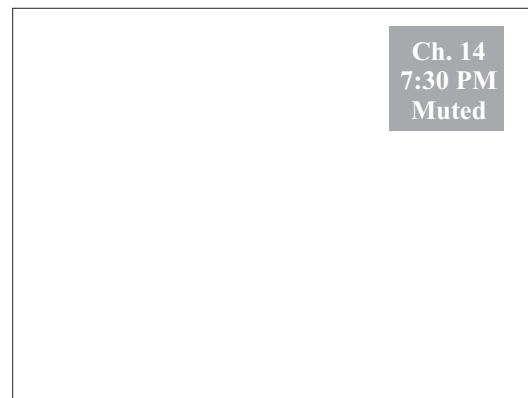
This feature allows the customer to maintain two separate Contrast, Brightness, Color, Tint, Sharpness setting "Custom" and "Preset". The "Preset" setting is set by the factory.

## MUTE

When the Mute key is pressed, the speakers will be turned off.

## WITH CHANNEL DISPLAY

The following display appears when the channel display is on.



## WITHOUT CHANNEL DISPLAY

The following display appears when the channel display is off.



## CHANNEL TIMER DISPLAY

When the ENTER key is pressed the TV display will appear. The first line displays the channel. The second line, the time is displayed. The Audio mode is shown in the last line (either Mono or Stereo).

## USER MENUS 221-1384 (continued)

Channel Labels						
A&E	CMTV	ESPN	HSE	NOS	TBN	VC
ABC	CNBC	ESPN2	HSN	PBS	TELE	VCR
ACTS	CNN	ET	IC	PLAY	TLC	VH-1
ADC	COM	EWTN	INSP	PTL	TMC	VISN
AMC	CSPN	FAM	JCN	QVC	TNN	VJN
BCC	CSP2	FNN	LIFE	RDS	TNT	WB
BET	CTN	FOX	MAX	REQ	TRAV	WGN
BRAV	CTV	F&V	ME/U	SC	TSN	WTBS
CA	DIS	FX	MMT	SCFI	TVA	WWOR
CBC	DISC	GALA	MTV	SHOW	TWC	YTV
CBN	E!	HBO	NBC	SIN	UPN	- - - -
CBS	ENC	HN	NICK	TBS	USA	None
NOTE: Selecting the "- - -" label option means the channel will not be displayed on the channel/time/audio signal display. Selecting the "None" option means the channel will not have a label.						

### MOTION PICTURE ASSOCIATION OF AMERICA (MPAA) RATING SYSTEM

G	General Audiences	Content not offensive to most viewers.
PG	Parental Guidance Suggested	Content is such that parents may not want their children to view the program.
PG-13	Parental Guidance Suggested	Program is inappropriate for preteens, with a greater degree of offensive material than a PG-rated program.
R	Restricted viewing	Not for children under age 17. Strong elements of sex and/or violence.
NC-17	Restricted Viewing	Not for children under age 17 under any circumstances. Strong sexual content.
X	Hard Core Films	Same as NC-17 rating.

**Note: Zenith Electronics Corporation is not liable for any program content that appears when using this rating system; as always, user discretion is advised.**

### TV PARENTAL GUIDELINE RATING SYSTEM

G	General Audiences	Content not offensive to most viewers.
TV-G	General Audience	Considered suitable for all audiences; children may watch unattended.
TV-PG	Parental Guidance Suggested	Unsuitable for younger children, may contain: Suggestive Dialog, Bad Language, Sex, and Violence Scenes.
TV-14 Cautioned	Parents Strongly Sex, and Violence Scenes.	Unsuitable for children under 14, may contain: Strong Dialog, Bad Language, Sex, and Violence Scenes.
TV-MA	Mature Audience Only	Adults only, may contain: Strong Dialog, Bad Language, Sex, and Violence Scenes.

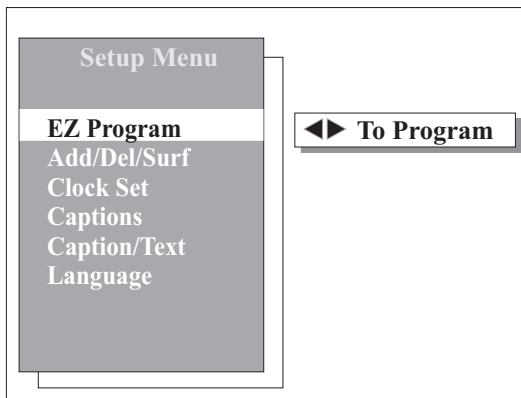
### CHILDRENS' CLASSIFICATIONS

TV-Y	Children	Considered suitable for all children under 7 years old.
TV-Y7	Children 7 and over	Considered suitable for children over 7, may contain Fantasy Violence Scenes.

# USER MENUS 221-1385

## SETUP MENU

Shown below is the **Setup Menu** for CA (A24) chassis with its options for each item which are described as follows:



## EZ PROGRAM

The EZ Program feature automatically searches for all available channels and marks them as 'added' so that they may be accessed via the channel Up/Down key.

In the EZ Program screen:

- A message at the top displays "EZ Program" to let the customer know that he/she has entered the EZ Program feature.
- A line at the bottom of the screen shows that the Up/Down and Left/Right Arrow keys are used for Auto Program selections.
- The current RF input type (Off Air Antenna or Cable TV) is highlighted. Use the Up/Down Arrow keys to change the RF input type.

To start the Auto Program, press the Left/Right Arrow key. If the Cable TV input type is selected, the EZ Program routine will determine what type of cable system is present.

### Notes:

- **EZ Program clears all Surfing channels which were added.**
- **While searching for channels, all keys except for the Power key are disabled. This prevents an incomplete EZ Program procedure.**
- **Running the EZ Program will clear the factory mode, if it was active. This happens at the end of the EZ Program.**
- **If the EZ Program line in the Setup Menu is 'red', this indicates that the module did not pass one of the test equipment's tests.**

- **If no channels are found then the following message will appear: "Make sure that the cable/ant. is connected, and try again."**

## CHANNEL Add/Del/Surf

After running the EZ Program, all channels found by the EZ Program feature will be marked 'Added'. However, some of these channels may be scrambled, or undesired by the customer. The Add/Del/Surf feature allows the customer to selectively mark any channel as 'Deleted' or 'Added'.

To change the status of a channel, press the Right/Left Arrow key.

To change the channel while adding or deleting channels, use the Channel Up/Down keys, or press the desired channel digits, followed by 'Enter'. If Channel Up/Down is pressed, the next or previous channel which was marked 'Added' will appear. If only one channel is present, to change the channel the customer must use the digit key pad to select a channel.

## CLOCK SET

When no time is set, the display shows: —:— —

There are two ways to set the time:

1. Direct Entry (preferred) Use the digit keys, followed by 'Enter' or Select Up/Down.
2. Left/Right Arrow keys

When the first digit is introduced, the display shows:

—:—d AM < FLSHBK

When the time is set, the display shows:

hh:mm AM < FLSHBK

where:

d = digit, mm = minutes hh = hours

Entering an invalid time ("0" for example) will result in the clearing of the current time (—:— —). Also when only one digit is pressed and no other is pressed in an interval of seven seconds, the current time will be cleared.

**Note: When the first digit is pressed (or the Left/Right Arrow Key is pressed), a TIMER icon appears on the right side of the AM/PM status.**

The Left/Right Arrow keys is the other way of setting the time. The drawback with using the Left/Right Arrow keys is if the customer uses the Right Arrow key, the time will increment to the next minute and so on until the customer finds the time desired. On the other hand, if the Left Arrow key is pressed, the time will decrement one minute and so on until the customer finds the time desired.

# USER MENUS 221-1385 (Continued)

## CAPTIONS

This feature allows the customer to select: On, Caption When Muted or Off options.

To change the status of captions, press the Right/Left Arrow key to select either On, Captions When Muted or Off.

## CAPTION/TEXT

This feature allows the customer to activate or deactivate Captions or Text.

Pressing the Left/Right Arrow keys sequentially through each of the following Caption/Text options.

Caption 1	Caption 2	Caption 3	Caption 4
Text 1	Text 2	Text 3	Text 4

### Notes:

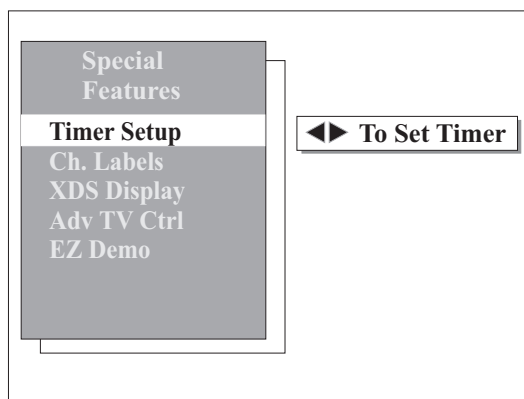
- *When the Text option is selected and a text box appears, if the CC key is pressed, the Caption box will appear.*
- *When captions are being displayed, if one of the Volume Up/Down keys is pressed, the volume bar will not appear.*
- *When the Captions are not activated and the CC key is pressed, the Caption Box will appear.*

## LANGUAGE

This feature allows the customer to change the menu language to English, Spanish or French by pressing the Left/Right Arrow keys.

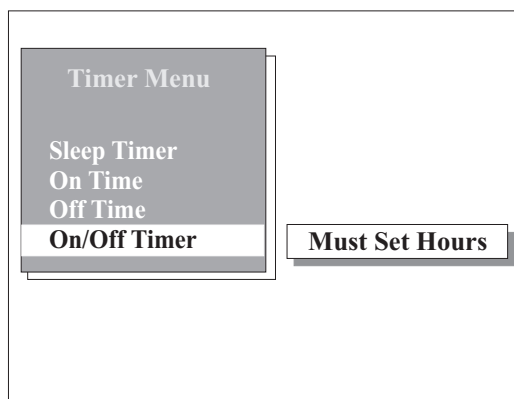
## SPECIAL FEATURES MENU

This Menu contains the Timer Setup, Ch. Labels, Adv. TV Ctrl, and EZ Demo.



## TIMER MENU

The Timer Menu contains the Sleep Timer and the On/Off Timer features.



## SLEEP TIMER

Sleep Timer (via Timer Menu)

The Left / Right Arrows can be used to adjust the current sleep timer setting:

Off, 0:10, 0:20, 0:30, 1:00, 1:30, 2:00, 3:00, 4:00

## ON/OFF TIMER

This feature consists of three menu lines: "On Time", "Off Time", and "On/Off Timer". This feature allows the set to turn on and off at the times specified in "On Time" and "Off Time".

The "On Time" and "Off Time" are set identical to the Clock Set feature in the Setup Menu.

An Off Time must be specified, before turning on the "EZ Timer"—otherwise an error message ("Must Set On/Off") will be displayed on the On/Off Timer line.

The "EZ Timer" option turns the feature on and off.

## CH LABELS OPTION

This feature allows the customer to select a channel label for the current station. This channel label is displayed in the Channel/Time display. Initially, all channel labels are set to '—', which results in no channel being displayed in the Channel/Time display.

To change the current channel label, press the Left/Right Arrow key.

To change the channel while adjusting channel labels, use the Channel Up/Dn keys, or press the desired channel digits, followed by 'Enter'. (If Channel Up/Down is pressed, the next or previous channel which was marked 'Added' will appear.)

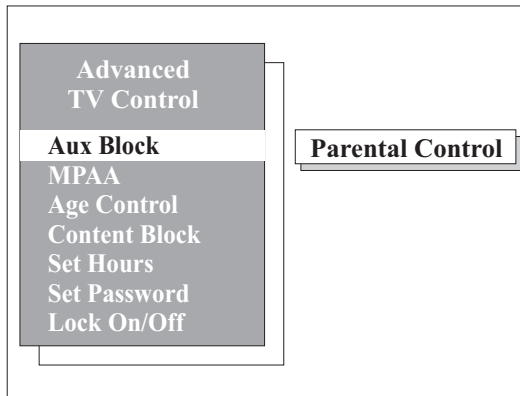
# USER MENUS 221-1385 (Continued)

## Notes:

- *When the channel label is selected (see 1-20 for labels), then the Auto channel label is activated, in other words, the program automatically takes the channel label of the signal that is send by broadcasting through the XDS service.*
- *If the label None is selected, the Auto channel label is deactivated.*

## ADVANCED TV CONTROL

This Special Features line allows entry into the Parental Control Menu.



To Block or Unblock the current channel , press the Left/Right Arrow key.

To change the channel while Blocking or Unblocking channels, use the Channel Up/Down keys, or press the desired channel digits, followed by ENTER.

(If Channel Up/Down is pressed, the next or previous channel which was marked 'Added' will appear.)

## AUXILIARY BLOCK

To Block or Unblock the sources, press the Left/Right Arrow key.

The SOURCE key may be used to view the video source.

## MPAA

The MPAA selector allows the customer to select either to have the channel Unblocked, From G, From PG, From PG-13, From R, From NC-17, or X.

## AGE BLOCK

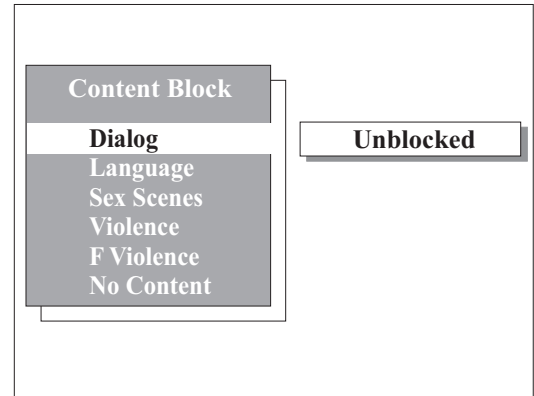
Use the Left/Right Arrow keys to select the Age Block Menu.

To block channels for a general age, select either: Unblocked, TV-G, TV-PG, TV-14 or TV-MA.

## CONTENT BLOCK

Use the Left/Right Arrow keys to select the Content Block Menu.

To block the dialog, use the Left/Right Arrow keys to select either: Unblocked, TV-PG or TV-14.



To block the dialog, use the Left/Right Arrow keys to select either: Unblocked, TV-PG,TV-14, or TV-MA.

## SEX SCENES

To block the Sex Scenes, use the Left/Right Arrow keys to select either: Unblocked, TV-PG,TV-14, or TV-MA.

To block the Violence, use the Left/Right Arrow keys to select either: Unblocked, TV-PG,TV-14, or TV-MA.

## SET HOURS

Use the Left/Right Arrow keys to adjust the number of hours the Parental Control feature will be active. The valid hour range is 1 to 99.

## SET PASSWORD

Press the Left/Right Arrow key to allow Password entry.

The software accepts four-digit codes only. A password must be entered by the customer.

After a four-digit code has been entered, the software requires the customer to reenter the same four-digit code.

If an invalid code is entered, or the two codes do not match, an error message ("Not Accepted!") will appear. This error message also appears when no code is entered for the password or if only one digit is entered and no other digit has been entered.

## USER MENUS 221-1385 (Continued)

### LOCK ON/OFF

This item turns the Parental Control feature On / Off. The PC feature can only be turned on if the hours > 0, and a password has been set. Otherwise the Lock On/Off line will display either of the following error messages: ("Must Set Hours") or ("Must Set Password.")

### REENTERING PARENTAL CONTROL

If the Parental Control feature has been activated, the software will not allow immediately entry into the Parental Control Menu—instead, it will prompt for the correct password. If the correct password is entered, the Parental Control menu will appear, with the highlighted item "Lock On/Off", which assumes that the customer most likely wants to turn the feature off. If an incorrect password is entered, an error message ("Not Accepted!") appears, and will not disappear until 5 seconds has elapsed. This extended time provision increases the amount of time necessary for a child to "crack" the password.

#### Notes:

- *The Parental Control menu will remain up to 10 seconds after the last key is pressed.*
- *The QUIT key may be pressed to remove the PC menu.*
- *Entry into the Factory Menu will immediately turn off the PC feature.*
- *The PC Hours and Password will be cleared upon exit of the PC menu (unless the PC feature has been turned on).*

### EZ DEMO

The EZ Demo is designed to show-off the icon menus and other icon displays on the sales floor, it will show also the scroll function. The EZ Demo feature can be turned on/off with the Left/Right Arrow keys.

Initially, when the feature is activated, as soon as the OSD times out, the EZ Demo will start. At this point, pressing any key will temporarily disable the EZ Demo for 18 seconds, and if the EZ Demo is working and Menu key is pressed then the Setup Menu will be displayed and the EZ Demo ON/OFF will be displayed to allow the customer to enable or disable.

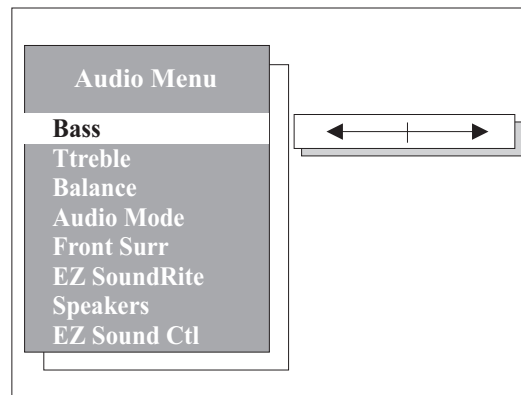
#### Notes:

- *When the Setup Menu is displayed, the highlighted line item is always 'Add/Del/Surf' and the current channel is temporarily made to be 'Surf' so that the moving surfer can be demonstrated.*
- *This channel will revert to its original 'Add/Del/Surf' setting with the next channel change.*

- *Zenith VCR, Zenith Cable, and Zenith Private Label TV codes will not temporarily disable the EZ Demo—only Zenith TV codes will be accepted.*
- *The Auto Demo on/off setting is not stored to the EEPROM.*
- *The Sleep Timer is suspended while the EZ Demo is set on.*

### AUDIO MENU

All menu items are adjustment with the Left/Right Arrow keys.



#### BASS

Bass adjustment has 15 steps (0 to 14).

#### TREBLE

Treble adjustment has 15 steps (0 to 14).

#### BALANCE

Balance adjustment has 29 steps (0 to 28).

#### AUDIO MODE

There are three audio modes available: Mono, Stereo, 2<sup>nd</sup> Audio/SAP.

If 2<sup>nd</sup> Audio/SAP is selected, but the current channel does not support SAP, then either Stereo or Mono will be heard.

#### FRONT SURROUND

Front Surround can be set 'ON' or 'Off', regardless of the current Audio Mode setting. However, the Front Surround effect can only be heard when the Audio Mode has been set to 'Stereo' and a Stereo signal is present. When this condition exists, there will be a short mute (200ms) while toggling the Surround 'On' to 'Off', to embellish Front Surround activation.



# USER MENUS 221-1385 (Continued)

## SOUND RITE

The Sound Rite feature is used to obtain a uniform volume level, particularly while changing channels. The Sound Rite feature can be best demonstrated on a channel with no signal (snow).

## SPEAKERS

The Speaker feature is used to turn off the internal speakers. It does this by pulling the power amp mute line.

## EZ SOUND CONTROL

The EZ Sound Control has six selections the customer can select. The selections available are: Custom, Normal, Stadium, News, Music and Theater. The Left/Right Arrow keys may be used to select any of the choices mentioned.

## VIDEO MENU

All menu items are adjusted with the Left/Right Arrow keys.

## CONTRAST

Contrast adjustment has 64 steps (0 to 63).

## BRIGHTNESS

Sharpness adjustment has 64 steps (0 to 63)

## COLOR

Color adjustment has 64 steps (0 to 63).

## TINT

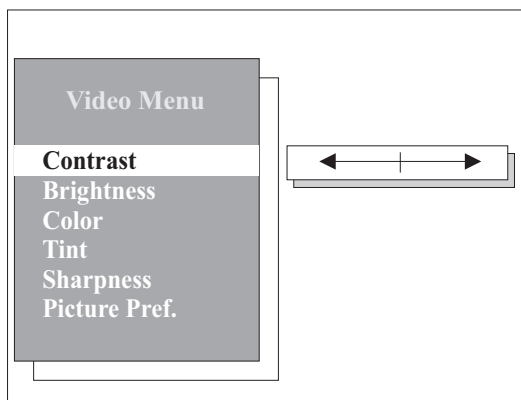
Tint Adjustment has 64 steps (0 to 63). A center mark indicates step 29

## SHARPNESS

Sharpness adjustment has 64 steps (0 to 63).

## EZ PICTURE

This feature allows the customer to maintain two separate Contrast, Brightness, Color, Tint, Sharpness setting "Custom" and "Preset". The "Preset" settings are set by the factory.



# USER MENUS 221-1385 (Continued)

Channel Labels						
A&E	CMTV	ESPN	HSE	NOS	TBN	VC
ABC	CNBC	ESPN2	HSN	PBS	TELE	VCR
ACTS	CNN	ET	IC	PLAY	TLC	VH-1
ADC	COM	EWTN	INSP	PTL	TMC	VISN
AMC	CSPN	FAM	JCN	QVC	TNN	VJN
BCC	CSP2	FNN	LIFE	RDS	TNT	WB
BET	CTN	FOX	MAX	REQ	TRAV	WGN
BRAV	CTV	F&V	ME/U	SC	TSN	WTBS
CA	DIS	FX	MMT	SCFI	TVA	WWOR
CBC	DISC	GALA	MTV	SHOW	TWC	YTV
CBN	E!	HBO	NBC	SIN	UPN	- - - -
CBS	ENC	HN	NICK	TBS	USA	None
NOTE:	Selecting the "- - - -" label option means the channel will not be displayed on the channel/time/audio signal display. Selecting the "None" option means the channel will not have a label.					

## MOTION PICTURE ASSOCIATION OF AMERICA (MPAA) RATING SYSTEM

G	General Audiences	Content not offensive to most viewers.
PG	Parental Guidance Suggested	Content is such that parents may not want their children to view the program.
PG-13	Parental Guidance Suggested	Program is inappropriate for preteens, with a greater degree of offensive material than a PG-rated program.
R	Restricted viewing	Not for children under age 17. Strong elements of sex and/or violence.
NC-17	Restricted Viewing	Not for children under age 17 under any circumstances. Strong sexual content.
X	Hard Core Films	Same as NC-17 rating.

**Note:** *Zenith Electronics Corporation is not liable for any program content that appears when using this rating system; as always, user discretion is advised.*

## TV PARENTAL GUIDELINE RATING SYSTEM

G	General Audiences	Content not offensive to most viewers.
TV-G	General Audience	Considered suitable for all audiences; children may watch unattended.
TV-PG	Parental Guidance Suggested	Unsuitable for younger children, may contain: Suggestive Dialog, Bad Language, Sex, and Violence Scenes.
TV-14	Parents Strongly Cautioned	Unsuitable for children under 14, may contain: Strong Dialog, Bad Language, Sex, and Violence Scenes.
TV-MA	Mature Audience Only	Adults only, may contain: Strong Dialog, Bad Language, Sex, and Violence Scenes.

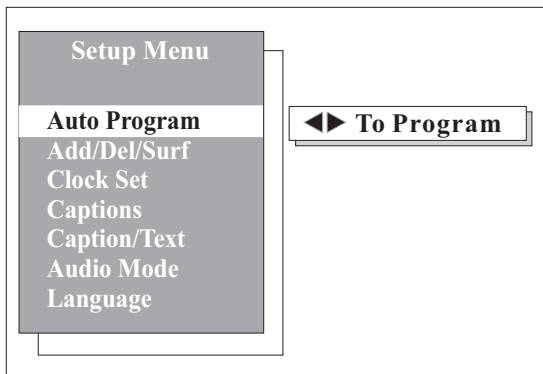
## CHILDRENS' CLASSIFICATIONS

TV-Y	Children	Considered suitable for all children under 7 years old.
TV-Y7	Children 7 and over	Considered suitable for children over 7, may contain Fantasy Violence Scenes.

# USER MENUS 221-1386

## SETUP MENU

Below is the Setup Menu for the CA Domestic (A30) chassis with each of its options described below.



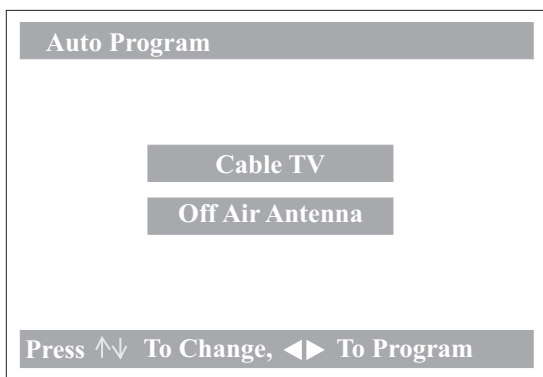
## AUTO PROGRAM

The Auto Program feature automatically searches for all available channels and marks them as 'added' so that they may be accessed via the channel Up/Down key.

In the Auto Program screen:

- A message at the top displays "Auto Program" to let the customer know that they have entered the Auto Program feature.
- A line at the bottom of the screen shows that the Up/Down and Left/Right Arrow keys are used for Auto Program selections.
- The current RF input type (Off Air Antenna or Cable TV) is highlighted. Use the Up/Down Arrow keys to change the RF input type.

To start the Auto Program, press the Left/Right Arrow key. If the Cable TV input type is selected, the Auto Program routine will determine what type of cable system is present.



## Notes:

- **Auto Program clears all Surfing channels, which were added.**
- **While searching for channels, all keys except for the Power key are disabled. This prevents an incomplete Auto Program procedure.**
- **Running the Auto Program will clear the factory mode, if it was active. This happens at the end of the Auto Program.**
- **If the Auto Program line in the Setup Menu is 'red', this indicates that the module did not pass one of the test equipment's tests.**
- **If no channels are found then the following message will appear: "Make sure that the cable/ant. is connected, and try again."**

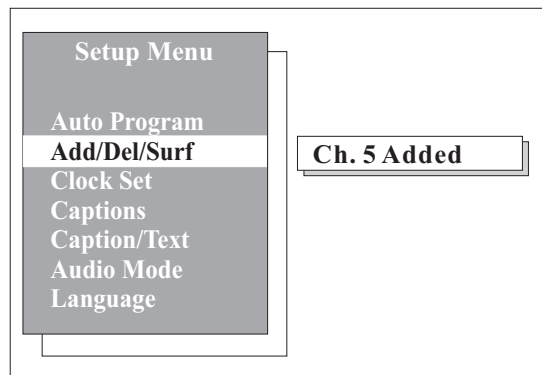
## CHANNEL ADD/DEL/SURF

After running the Auto Program, all channels found by the Auto Program feature, will be marked 'Added'. However, some of these channels may be scrambled, or undesired by the customer. The Add/Del/Surf feature allows the customer to selectively mark any channel as 'Deleted' or 'Added'.

To change the status of a channel, press the Right/Left Arrow key.

To change the channel while adding or deleting channels, use the Channel Up/Down keys, or press the desired channel digits, followed by the ENTER key. If Channel Up/Down is pressed, the next or previous channel which was marked 'Added' will appear. If only one channel is present, to change the channel the customer must use the digit keypad to select a channel.

The following figure shows the options for the Add/Del/Surf feature.



# USER MENUS 221-1386 (Continued)

## CLOCK SET

When no time is set, the display shows: —:— —

There are two ways to set the time:

1. Direct Entry (preferred) Use the digit keys, followed by 'Enter' or Select Up/Down.
2. Left/Right Arrow keys

When the first digit is introduced, the display shows:

—: -d AM <FLSHBK

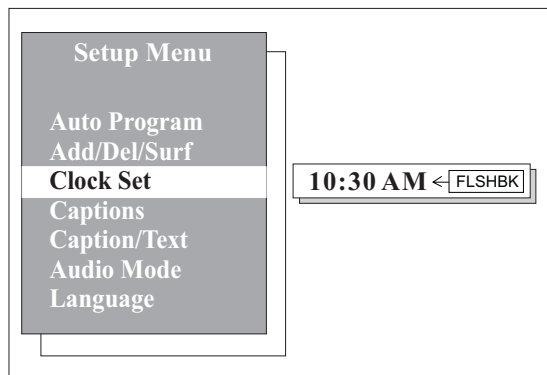
When the time is set, the display shows:

hh: mm AM <FLSHBK

Where:

d = digit, mm = minutes hh = hours

Entering an invalid time ("0" for example) will result in the clearing of the current time (—:— —). Also when only one digit is pressed and no other is pressed in an interval of seven seconds, the current time will be cleared.

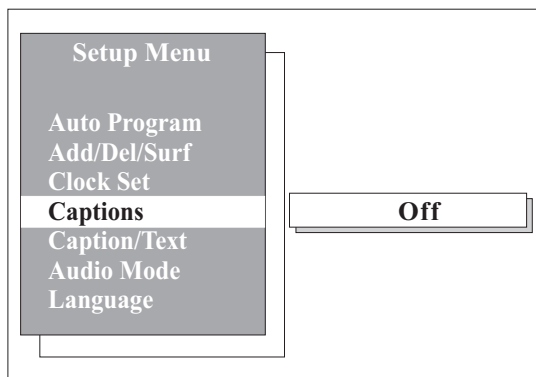


**Note:** *When the first digit is pressed (or the Left/Right Arrow Key is pressed), a **TIMER** icon appears on the right side of the AM/PM status.*

The Left/Right Arrow keys is the other way of setting the time. The drawback with using the Left/Right Arrow keys is if the customer uses the Right Arrow key, the time will increment to the next minute and so on until the customer finds the time desired. On the other hand, if the Left Arrow key is pressed, the time will decrement one minute and so on until the customer finds the time desired.

## CAPTIONS

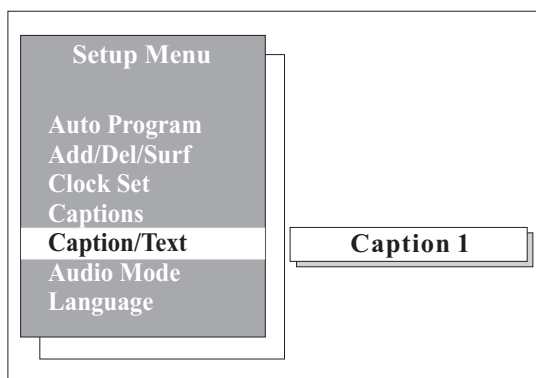
This feature allows the customer to select: Off, On, or Caption When Muted options.



To change the status of captions, press the Right/Left Arrow key to select either On, Off or Captions When Muted.

## CAPTION/TEXT

This feature allows the customer to activate or deactivate Captions or Text.



Pressing the Left/Right Arrow keys sequentially through each of the following Caption/Text options.

Caption 1	Caption 2	Caption 3	Caption 4
Text 1	Text 2	Text 3	Text 4

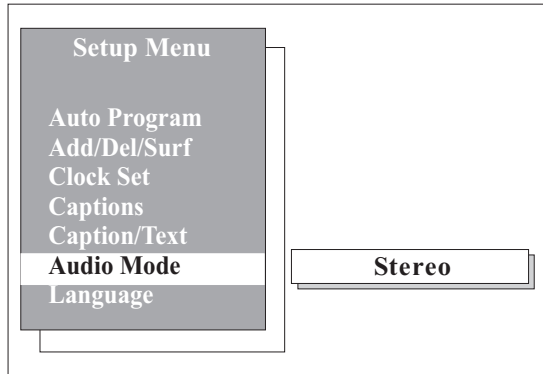
### Notes:

- **When captions are being displayed, if one of the Volume Up/Down keys is pressed, the volume bar will not appear.**
- **When the Captions are not activated and the CC key is pressed, the Caption Box will appear.**

# USER MENUS 221-1386 (Continued)

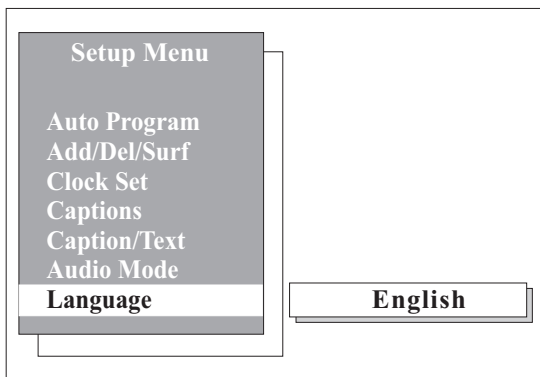
## AUDIO MODE

This feature allows the customer to change the audio mode to either Stereo or Mono by pressing the Left/Right Arrow keys.



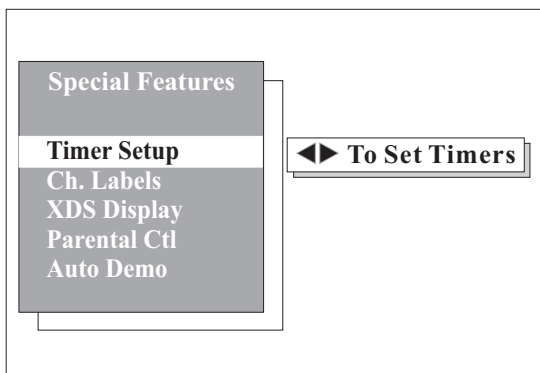
## LANGUAGE

This feature allows the customer to change the menu language to English, Spanish or French by pressing the Left/Right Arrow keys.



## SPECIAL FEATURES MENU

This Menu contains the Timer Setup, Ch. Labels, XDS Display, Parental Ctl, and Auto Demo.



## TIMER MENU

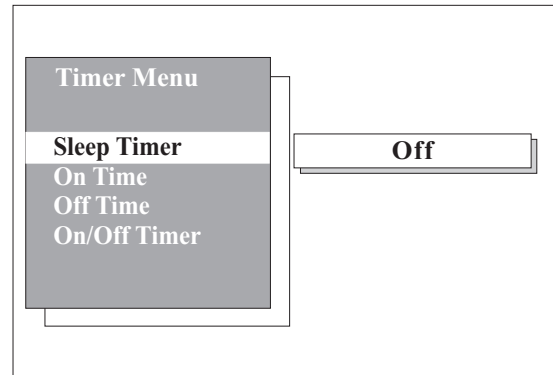
The Timer Menu contains the Sleep Timer and the On/Off Timer features.

### SLEEP TIMER

(via Timer Menu)

The Left/Right Arrows can be used to adjust the current sleep timer setting:

Off, 0:10, 0:20, 0:30, 1:00, 1:30, 2:00, 3:00 or 4:00



### ON TIME

This feature allows the TV set to turn on at the time specified in On Time.

The "On Time" is set identical to the Clock Set feature in the Setup Menu.

### OFF TIME

An Off Time must be specified, before turning on the "On/Off Timer" — otherwise an error message ("Must Set On/Off") will be displayed on the On/Off Timer line.

This feature allows the TV set to turn off at the time specified in Off Time.

The "Off Time" is set identical to the Clock Set feature in the Setup Menu.

### ON/OFF TIMER

The On/Off Timer option turns the Timer On or Off.

### CH LABELS OPTION

This feature allows the customer to select a channel label for the current station. This channel label is displayed in the Channel/Time display. Initially, all channel labels are set to '—', which results in no channel being displayed in the Channel/Time display.

To change the current channel label, press the Left/Right Arrow key.

# USER MENUS 221-1386 (Continued)

To change the channel while adjusting channel labels, use the Channel Up/Down keys, or press the desired channel digits, followed by 'Enter'. (If Channel Up/Down is pressed, the next or previous channel which was marked 'Added' will appear.)

### Notes:

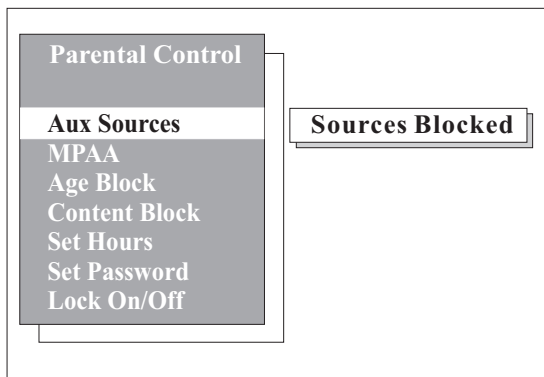
- *When the channel label is selected (see 1-28 for labels), then the Auto channel label is activated, in other words, the program automatically takes the channel label of the signal that is send by broadcasting through the XDS service.*
- *If the label None is selected, the Auto channel label is deactivated.*

### XDS DISPLAY

Pressing the Left/Right Arrow Keys allows the customer to select the XDS Display either On or Off.

### PARENTAL CONTROL

The Parental Control Menu items are adjusted with the Up Arrow key.



### AUXILIARY BLOCK SOURCES

To Block or Unblock the sources, press the Left/Right Arrow key.

The SOURCE key may be used to view the other source.

### MPAA

The MPAA selector allows the customer to have television programs blocked using the MPAA rating. The customer may select either Unblocked, G and Above, PG and Above, PG-13 and Above, R and Above, NC-17 and Above, or X.

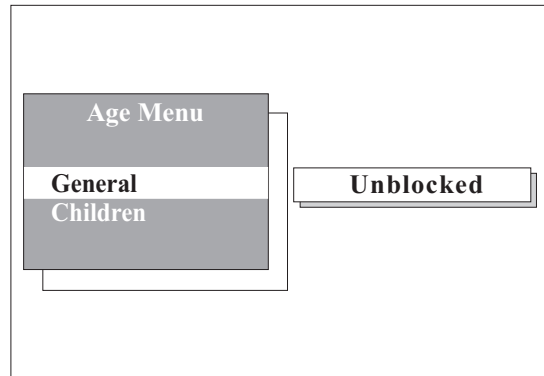
### AGE BLOCK

Use the Left/Right Arrow keys to select the Age Block Menu.

### GENERAL BLOCK

Once entered into the Age Block Menu, the customer has the option to block programs by a General Age Rating or to block programs by a Children Rating.

To block television programs for a General Age Rating use the Left/Right Arrow keys to select either Unblocked, TV-G and Above, TV-PG and Above, TV-14 and Above or TV-MA.



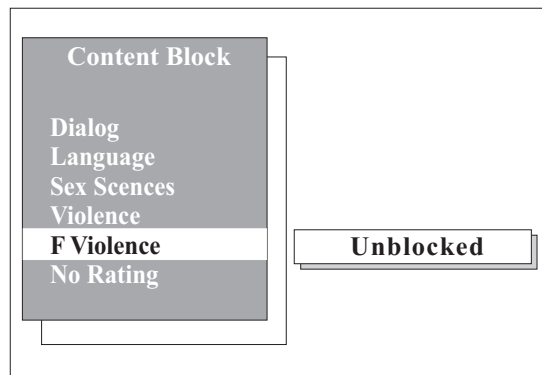
### CHILDREN BLOCK

To block television programs for Children's Age Rating, use the Left/Right Arrow keys to select either Unblocked, TV-Y and Above or TV-Y7.

### CONTENT BLOCK

Use the Left/Right Arrow keys to select the Content Block Menu.

To block television programs with F Violence rating, use the Left/Right Arrow keys to select either: Unblocked, TV-Y7.



### NO RATING BLOCK

To block television programs with No Rating, use the Left/Right Arrow keys to select either: Unblocked and Blocked.

# USER MENUS 221-1386 (Continued)

## SET HOURS

Use the Left/Right Arrow keys to adjust the number of hours the Parental Control feature will be active. The valid hour range is 1 through 99 hours.

## SET PASSWORD

Press the Left/Right Arrow key to allow Password entry

## TO ENTER PASSWORD

The software accepts four-digit codes only. The customer must enter a password.

## REPEAT PASSWORD

After a four-digit code has been entered, the software requires the customer to reenter the same four-digit code.

## PASSWORD NOT ACCEPTED

If an invalid code is entered, or the two codes entered do not match, a blinking error message ("Not Accepted!") will appear.

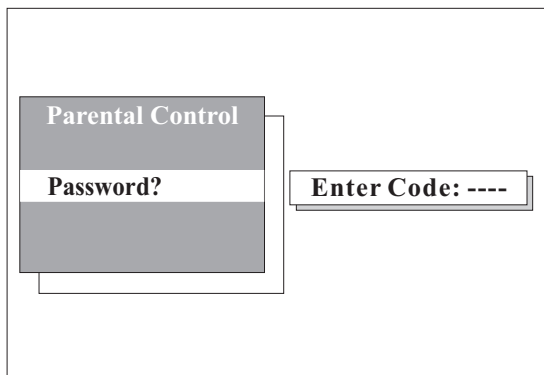
This error message also appears when no code is entered for the password or if only one digit is entered and no other digit has been entered.

## LOCK ON/OFF

This item turns the Parental feature On or Off. The Parental Ctrl. feature can only be turned on if the hours>0, and a password has been set. Otherwise the Lock On/Off line will display either of the following error messages: "Must Set Hours" or "Must Set Password."

## REENTERING PARENTAL CONTROL MENU

If the Parental Control feature has been activated, the software will not allow immediately entry into the Parental Control Menu. Instead, it will prompt for the correct password.



If the correct password is entered, the Parental Control menu will appear, with the highlighted item "Lock On/Off", which assumes that the customer most likely wants to turn the feature off. If an incorrect password is entered, an error message ("Not Accepted!") appears, and will not disappear until 5 seconds has elapsed. This extended time provision increases the amount of time necessary for a child to "crack" the password.

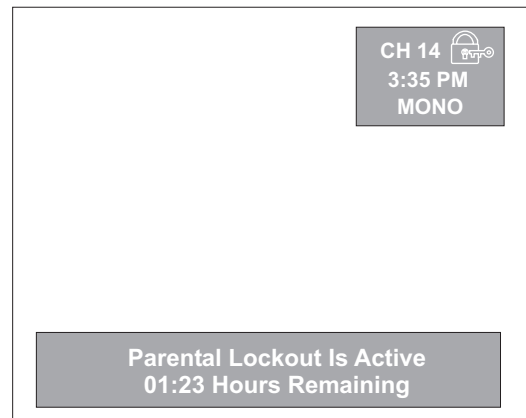
## Notes:

- *The Parental Control menu will remain up for 10 seconds after the last key is pressed.*
- *The QUIT key may be pressed to remove the PC menu.*
- *Entry into the Factory Menu will immediately turn off the PC feature*
- *The PC Hours and Password will be cleared upon exit of the Parental Ctrl menu (unless the Parental Ctrl feature has been turned on).*

## DISPLAY WHEN PARENTAL CONTROL IS ACTIVE

When the Parental Control has been activated the channel is blocked. The display on the screen shows two lines. The first line displays a message saying that the "PARENTAL LOCKOUT IS ACTIVE."

The second line displays the amount of time (in hours) left in the lockout.



# USER MENUS 221-1386 (Continued)

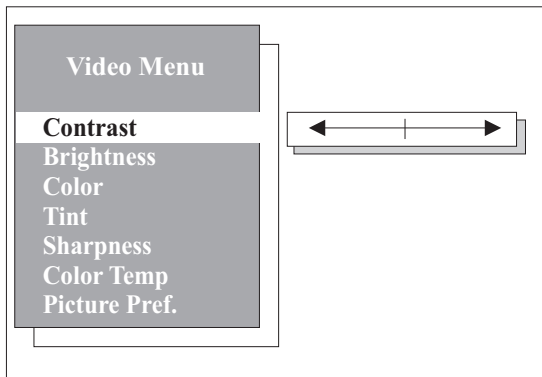
## AUTO DEMO

The Auto Demo is designed to “show-off” the icon menus and other icon displays on the sales floor. The Auto Demo feature can be turned On/Off with the Left/Right Arrow keys.

Initially, when the feature is activated, as soon as the OSD times out, the Auto Demo will start. At this point, pressing any key will temporarily disable the Auto Demo for 18 seconds, and if the Auto Demo is working and the Menu key is pressed then the Setup Menu will be displayed and the Auto Demo feature will be selected allowing the customer to disable it.

## VIDEO MENU

All menu items are adjusted with the Left/Right Arrow keys.



## CONTRAST

Contrast adjustment has 64 steps (0 to 63).

## BRIGHTNESS

The brightness value sent to the video processor is (RfBrt + Customer Brightness) if the source is the RF source, or (AuxBrt + Customer Brightness) if the source is the AUX source. RfBrt and AuxBrt appear in the factory menu.

## COLOR

Color adjustment has 64 steps (0 to 63).

## TINT

Tint Adjustment has 64 steps (0 to 63). A center mark indicates step 29.

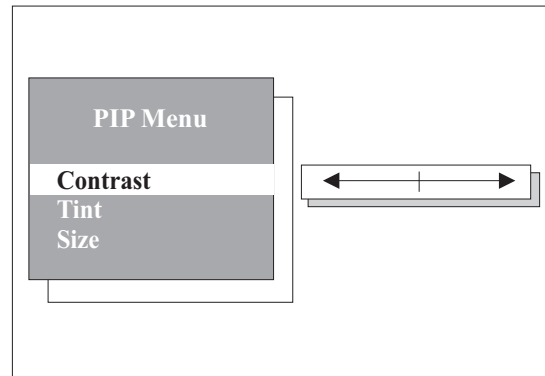
## SHARPNESS

Sharpness adjustment has 64 steps (0 to 63).

## COLOR TEMP

Sets the color temperature. The two settings are COOL and WARM.

## PICTURE PREF



This feature allows the customer to maintain two separate Contrast, Brightness, Color, Tint, Sharpness setting “Custom” and “Preset”. The factory sets the “Preset” setting.

## PIP MENU

All menu items are adjusted with the Left/Right Arrow keys.

## CONTRAST

Contrast adjustment has 64 steps (0 to 63). A center mark indicates step 31. This item allows the contrast adjustment of the PIP window.

## TINT

This item allows adjust the PIP tint. Tint Adjustment has 64 steps (0 to 63).

## SIZE

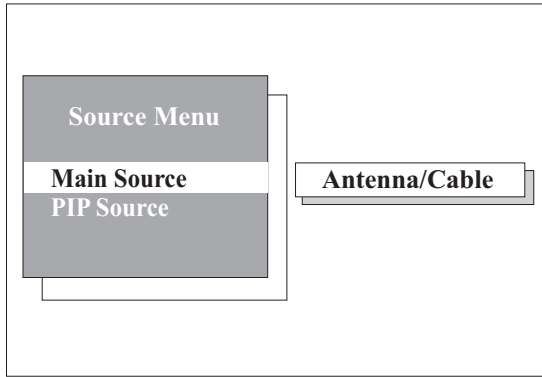
This option is used to select size of the PIP window. The customer may select the PIP window size either large or small.



# USER MENUS 221-1386 (Continued)

## SOURCE MENU

This menu has two items, Main Source and PIP Source. The selection of either Main Source or PIP Source determines the signal that feeds the video processor. The options available are Antenna/Cable or Aux. as shown below.



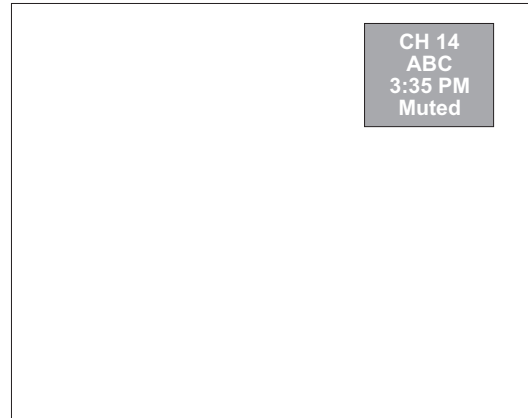
## MAIN SOURCE

The selection of Main Source determines the signal that feeds the video processor.

## PIP SOURCE

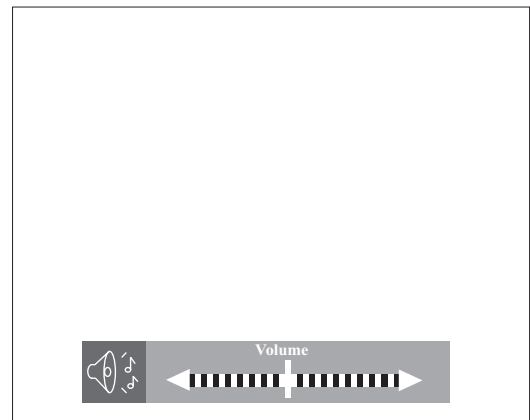
The selection of PIP Source determines the signal that feeds the video processor.

## CHANNEL/TIME/AUDIO DISPLAY WITHOUT XDS.



## VOLUME DISPLAY

When the Volume Up/Down key is pressed, the following display appears.



# USER MENUS 221-1386 (Continued)

Channel Labels						
A&E	CMTV	ESPN	HSE	NOS	TBN	VC
ABC	CNBC	ESPN2	HSN	PBS	TELE	VCR
ACTS	CNN	ET	IC	PLAY	TLC	VH-1
ADC	COM	EWTN	INSP	PTL	TMC	VISN
AMC	CSPN	FAM	JCN	QVC	TNN	VJN
BCC	CSP2	FNN	LIFE	RDS	TNT	WB
BET	CTN	FOX	MAX	REQ	TRAV	WGN
BRAV	CTV	F&V	ME/U	SC	TSN	WTBS
CA	DIS	FX	MMT	SCFI	TVA	WWOR
CBC	DISC	GALA	MTV	SHOW	TWC	YTV
CBN	E!	HBO	NBC	SIN	UPN	- - - -
CBS	ENC	HN	NICK	TBS	USA	None
NOTE: Selecting the "- - -" label option means the channel will not be displayed on the channel/time/audio signal display. Selecting the "None" option means the channel will not have a label.						

## MOTION PICTURE ASSOCIATION OF AMERICA (MPAA) RATING SYSTEM

G	General Audiences	Content not offensive to most viewers.
PG	Parental Guidance Suggested	Content is such that parents may not want their children to view the program.
PG-13	Parental Guidance Suggested	Program is inappropriate for preteens, with a greater degree of offensive material than a PG-rated program.
R	Restricted viewing	Not for children under age 17. Strong elements of sex and/or violence.
NC-17	Restricted Viewing	Not for children under age 17 under any circumstances. Strong sexual content.
X	Hard Core Films	Same as NC-17 rating.

**Note:** *Zenith Electronics Corporation is not liable for any program content that appears when using this rating system; as always, user discretion is advised.*

## TV PARENTAL GUIDELINE RATING SYSTEM

G	General Audiences	Content not offensive to most viewers.
TV-G	General Audience	Considered suitable for all audiences; children may watch unattended.
TV-PG	Parental Guidance Suggested	Unsuitable for younger children, may contain: Suggestive Dialog, Bad Language, Sex, and Violence Scenes.
TV-14	Parents Strongly Cautioned	Unsuitable for children under 14, may contain: Strong Dialog, Bad Language, Sex, and Violence Scenes.
TV-MA	Mature Audience Only	Adults only, may contain: Strong Dialog, Bad Language, Sex, and Violence Scenes.

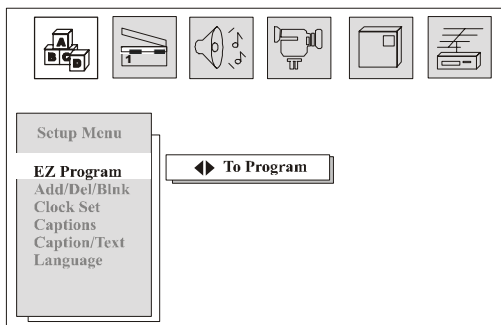
## CHILDRENS' CLASSIFICATIONS

TV-Y	Children	Considered suitable for all children under 7 years old.
TV-Y7	Children 7 and over	Considered suitable for children over 7, may contain Fantasy Violence Scenes.

# USER MENUS 221-1387

## SETUP MENU

Shown below is the Setup Menu for CA (A34) chassis with its options for each item which are described as follows:



## AUTO PROGRAM (A34)

The Auto Program feature automatically searches for all available channels and marks them as 'Added' so that they may be accessed via the channel Up/Down key.

In the Auto Program screen:

- A message at the top displays "Auto Program" to let the customer know that he/she has entered the Auto Program feature.
- A line at the bottom of the screen shows that the Up/Down and Left/Right Arrow keys are used for Auto Program selections.
- The current RF input type (Off Air Antenna or Cable TV) is highlighted. Use the Up/Down Arrow keys to change the RF input type.
- To start the Auto Program, press the Left/Right Arrow key. If the Cable TV input type is selected, the Auto Program routine will determine what type of cable system is present.

### Notes:

- **Auto Program clears all Surfing channels which were added.**
- **While searching for channels, all keys except for the Power key are disabled. This prevents an incomplete Auto Program procedure.**
- **Running the Auto Program will clear the factory mode, if it was active. This happens at the end of the Auto Program.**
- **If the Auto Program line in the Setup Menu is 'red', this indicates that the module did not pass one of the test equipment's tests.**
- **If no channels are found then the following message will appear: "Make sure that the cable/ant. is connected, and try again."**

## CHANNEL Add/Del/Surf

After running the Auto Program, all channels found by the Auto Program feature will be marked 'Added'. However, some of these channels may be scrambled, or undesired by the customer. The Add/Del/Surf feature allows the customer to selectively mark any channel as 'Deleted' or 'Added'.

To change the status of a channel, press the Right/Left Arrow key.

To change the channel while adding or deleting channels, use the Channel Up/Down keys, or press the desired channel digits, followed by the ENTER key. If Channel Up/Down is pressed, the next or previous channel which was marked 'Added' will appear. If only one channel is present, to change the channel the customer must use the digit key pad to select a channel.

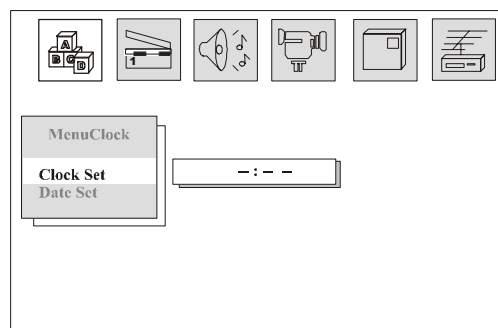
The following figure shows the options for the Add/Del/Surf feature.

## CLOCK MENU

Clock Set feature contains a Clock Menu for Clock Set and Date Set

## CLOCK SET

When the Clock Set item is selected, pressing the Left/Right Arrow keys allows entry into the clock set menu.



When no time is set, the display shows: —:— —

There are two ways to set the time:

1. Direct Entry (preferred) Use the digit keys, followed by 'Enter' or Select Up/Down.
2. Left/Right Arrow keys

When the first digit is introduced, the display shows:

—:—d AM < Timer

When the time is set, the display shows:

hh:mm AM < Timer

where:

d = digit, mm = minutes hh = hours

# USER MENUS 221-1387 (Continued)

Entering an invalid time ("0" for example) will result in the clearing of the current time (—:— —). Also when only one digit is pressed and no other is pressed in an interval of seven seconds, the current time will be cleared.

**Note: When the first digit is pressed (or the Left/Right Arrow Key is pressed), a TIMER icon appears on the right side of the AM/PM status.**

The Left/Right Arrow keys is the other way of setting the time. The drawback with using the Left/Right Arrow keys is if the customer uses the Right Arrow key, the time will increment to the next minute and so on until the customer finds the time desired. On the other hand, if the Left Arrow key is pressed, the time will decrement one minute and so on until the customer finds the time desired.

## DATE SET

When no date is set, the display shows MM/DD/YY blinking.

Like setting the clock, there are two ways to set the date:

1. Direct Entry (preferred)
2. Left/Right and Up/Dn Keys

### Notes:

- **When the first digit is introduced (d), the display shows: dM/DD/YY then, blinking will stop.**
- **If no other digit is set in a seven second interval, the current date will be clear. After the last digit has been entered, the following display appears: (eg. 01/02/97) Jan/02/97.**
- **Another way to set the date is using the Left/Right and Up/Down Arrow keys. Use the Left/Right key to select either the month, day or year depending which one needs to be changed. Use the Up/Down to change the value of the month, day or year.**
- **Whichever of the three options is selected (MM, DD, or YY) , the option selected, will blink.**
- **If no other Arrow key is entered, then an Auto Enter is made by the software.**

## CAPTIONS

This feature allows the customer to select: Off , On, or Caption When Muted options.

To change the status of captions, press the Right/Left Arrow key to select either On, Captions When Muted or Off.

## CAPTION/TEXT

This feature allows the customer to activate or deactivate Captions or Text.

Pressing the Left/Right Arrow keys sequentially through each of the following Caption/Text options.

Caption 1	Caption 2	Caption 3	Caption 4
Text 1	Text 2	Text 3	Text 4

### Notes:

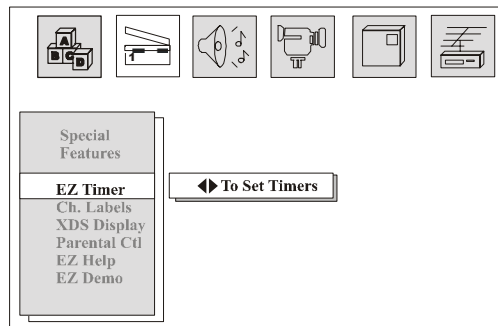
- **When the Text option is selected and a text box appears, if the CC key is pressed, the Caption box will appear.**
- **When captions are being displayed, if one of the Volume Up/Down keys is pressed, the volume bar will not appear.**
- **When the Captions are not activated and the CC key is pressed, the Caption Box will appear, that allows choose On, Caption When Muted or Off.**

## LANGUAGE

This feature allows the customer to change the menu language to English, Spanish or French by pressing the Left/Right Arrow keys.

## SPECIAL FEATURES MENU

This Menu contains the Timer Setup, Ch. Labels, XDS Display, Adv. TV Ctrl, and Auto Demo.



## TIMER SETUP MENU

### TIMER

The Timer Menu contains the Sleep Timer and the On/Off Timer features.

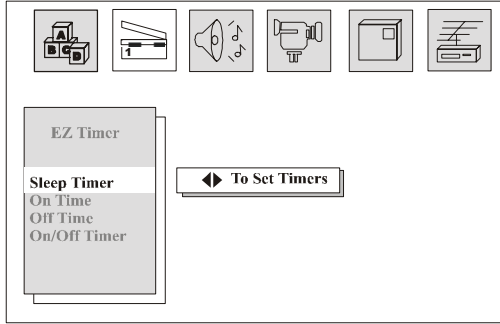
### SLEEP TIMER

Sleep Timer (via Timer Menu)

The Left/Right Arrows can be used to adjust the current sleep timer setting:

Off, 0:10, 0:20, 0:30, 1:00, 1:30, 2:00, 3:00 or 4:00.

# USER MENUS 221-1387 (Continued)



## ON/OFF TIMER

This feature consists of three menu lines: “On Time”, “Off Time”, and “On/Off Timer”. This feature allows the set to turn on and off at the times specified in “On Time” and “Off Time”.

The “On Time” and “Off Time” are set identical to the Clock Set feature in the Setup Menu.

An Off Time must be specified, before turning on the “EZ Timer”—otherwise an error message (“Must Set On/Off”) will be displayed on the On/Off Timer line.

The On/ Off Timer option turns the Timer On or Off.

If there is no Off Time set, then the On/Off Timer displays the above message saying: “Must Set Off Timer.” Once the Off timer has been set, the customer can then set the option to either On or Off.

## CH LABELS OPTION

This feature allows the customer to select a channel label for the current station. This channel label is displayed in the Channel/Time display. Initially, all channel labels are set to ‘—’, which results in no channel being displayed in the Channel/Time display.

To change the current channel label, press the Left/Right Arrow key.

To change the channel while adjusting channel labels, use the Channel Up/Down keys, or press the desired channel digits, followed by ‘Enter’. (If Channel Up/Down is pressed, the next or previous channel which was marked ‘Added’ will appear.)

### Notes:

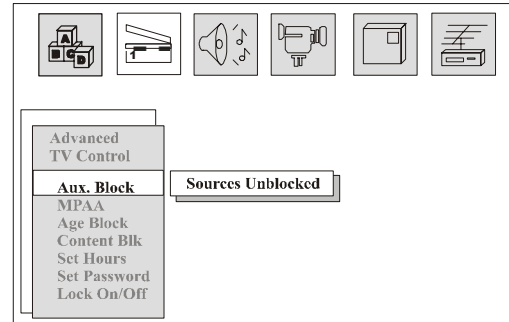
- *When the channel label is selected (see 1-36 for labels), then the Auto channel label is activated, in other words, the program automatically takes the channel label of the signal that is send by broadcasting through the XDS service.*
- *If the label None is selected, the Auto channel label is deactivated.*

## XDS DISPLAY

Pressing the Left/Right Arrow Keys allows the customer to select the XDS Display either On or Off.

## ADVANCED TV CONTROL MENU

The Advanced TV Control Menu items are adjusted with the Up Arrow key.



## AUXILIARY SOURCES

To Block or Unblock the sources, press the Left/Right Arrow key.

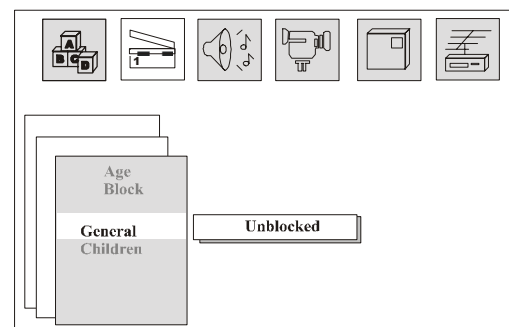
The SOURCE key may be used to view the other source.

## MPAA

The MPAA selector allows the customer to select either to have the channel Unblocked, G and Above, PG and Above, PG-13 and Above, R and Above, NC-17 and Above, or X.

## AGE BLOCK

Use the Left/Right Arrow keys to select the Age Block Menu.



## GENERAL BLOCK

Once entered into the Age Block Menu, the customer has the option to block channels for general age or to block channels for children.

To block channels for a general age, the customer may either select: Unblocked, TV-G and Above, TV-PG and Above, TV-14 and Above or TV-MA.

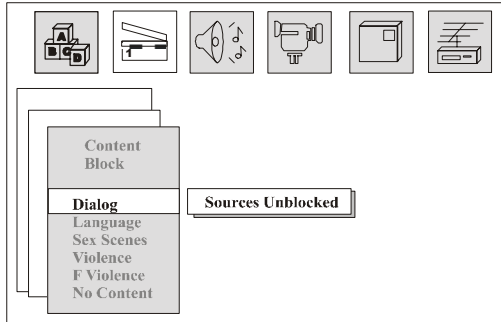
# USER MENUS 221-1387 (Continued)

## CHILDREN BLOCK

To block channels for children, select either: Unblocked, TV-Y and Above or TV-Y7.

## CONTENT BLOCK

Use the Left/Right Arrow keys to select the Content Block Menu



## DIALOG BLOCK

To block the dialog, use the Left/Right Arrow keys to select either: Unblocked, TV-PG and Above or TV-14.

## LANGUAGE BLOCK

To block the dialog, use the Left/Right Arrow keys to select either: Unblocked, TV-PG and Above, TV-14 and Above, or TV-MA.

## SEX SCENES BLOCK

To block the Sex Scenes, use the Left/Right Arrow keys to select either: Unblocked, TV-PG and Above, TV-14 and Above, or TV-MA.

## VIOLENCE BLOCK

To block the Violence, use the Left/Right Arrow keys to select either: Unblocked, TV-PG and Above, TV-14 and Above, or TV-MA.

## F VIOLENCE BLOCK

To block the FViolence, use the Left/Right Arrow keys to select either: Unblocked, TV-Y7.

## NO CONTENT BLOCK

Use the Left/Right Arrow keys to adjust the number of hours the Parental Control feature will be active. The valid hour range is 1 through 99 hours.

## SET PASSWORD

Press the Left/Right Arrow key to allow Password entry.

## TO ENTER PASSWORD

The software accepts four-digit codes only. A password must be entered by the customer.

## REPEAT PASSWORD

After a four-digit code has been entered, the software requires the customer to reenter the same four-digit code.

## PASSWORD NOT ACCEPTED

If an invalid code is entered, or the two codes entered do not match, a blinking error message ("Not Accepted!") will appear.

This error message also appears when no code is entered for the password or if only one digit is entered and no other digit has been entered.

## LOCK ON/OFF

This item turns the Advanced TV feature On or Off. The Adv. TV Ctrl. feature can only be turned on if the hours > 0, and a password has been set. Otherwise the Lock On/Off line will display either of the following error messages: "Must Set Hours" or "Must Set Password."

## REENTERING ADVANCED TV CONTROL MENU

If the Parental Control feature has been activated, the software will not allow immediately entry into the Advanced TV Control Menu. Instead, it will prompt for the correct password. If the correct password is entered, the Advanced TV Control menu will appear, with the highlighted item "Lock On/Off", which assumes that the customer most likely wants to turn the feature off. If an incorrect password is entered, an error message ("Not Accepted!") appears, and will not disappear until 5 seconds has elapsed. This extended time provision increases the amount of time necessary for a child to "crack" the password.

### Notes:

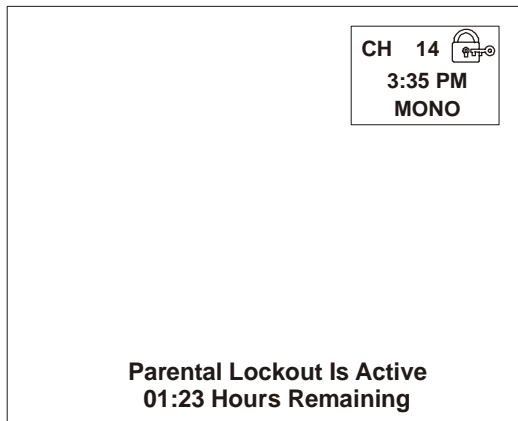
- *The Advanced TV Control menu will remain up for 10 seconds after the last key is pressed.*
- *The QUIT key may be pressed to remove the PC menu.*
- *Entry into the Factory Menu will immediately turn off the PC feature.*
- *The PC Hours and Password will be cleared upon exit of the Adv. TV Ctrl menu (unless the Adv. TV Ctrl feature has been turned on.)*

## DISPLAY WHEN ADVANCED TV CONTROL IS ACTIVE

When the Advanced TV Control has been activated the channel is blocked. The display on the screen shows two lines. The first line displays a message saying that the "PARENTAL LOCKOUT IS ACTIVE."

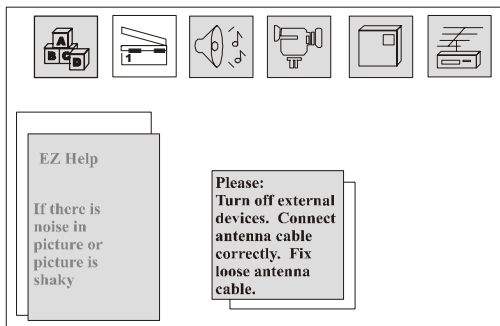
The second line displays the amount of time (in hours) left in the lockout.

# USER MENUS 221-1387 (Continued)



## EZ HELP MENU

The special features EZ Help option may be accessed using the Left/Right Arrow keys. The EZ Help feature provides help on certain options. For example, when the EZ Help feature is activated using the Left/Right Arrow keys, the EZ Program option is available to access through the EZ Help menu. Along with the possibility of accessing any of the following options EZ Program, Add/Surf/Del, Degaussing, EZ Picture and EZ SoundRite, there is a simple explanation of the each of the options.



The EZ Help has a main screen called EZ Help. This screen gives a solution to the most common problem that a customer may encounter; i.e., the correct connection of the antenna.

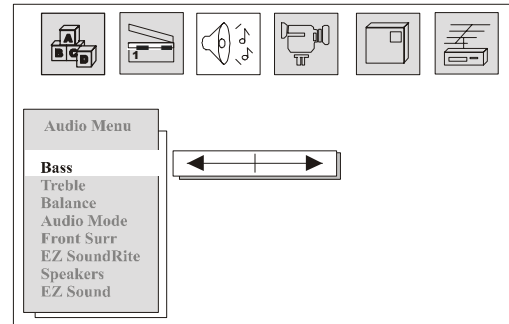
## EZ DEMO

The Auto Demo is designed to show-off the icon menus and other icon displays on the sales floor. The Auto Demo feature can be turned On/Off with the Left/Right Arrow keys.

Initially, when the feature is activated, as soon as the OSD times out, the Auto Demo will start. At this point, pressing any key will temporarily disable the Auto Demo for 18 seconds, and if the Auto Demo is working and the Menu key is pressed then the Setup Menu will be displayed and the Auto Demo feature will be selected allowing the customer to disable it.

## AUDIO MENU

All menu items are adjustment with the Left/Right Arrow keys.



## BASS

Bass adjustment has 15 steps (0 to 14). The following figure shows a mark at the center indicating step 7.

## TREBLE

Treble adjustment has 15 steps (0 to 14).

## BALANCE

Balance adjustment has 29 steps (0 to 28).

## AUDIO MODE

There are three audio modes available: Mono, Stereo, 2<sup>nd</sup> Audio/SAP.

If 2<sup>nd</sup> Audio/SAP is selected, but the current channel does not support SAP, then either Stereo or Mono will be heard.

## FRONT SURROUND

Front Surround can be set 'ON' or 'Off', regardless of the current Audio Mode setting. However, the Front Surround effect can only be heard when the Audio Mode has been set to 'Stereo' and a Stereo signal is present. When this condition exists, there will be a short mute (200ms) while toggling the Surround 'On' to 'Off', to embellish Front Surround activation.

## SOUND RITE

The Sound Rite feature is used to obtain a uniform volume level, particularly while changing channels. The Sound Rite feature can be best demonstrated on a channel with no signal (snow).

## SPEAKERS

The Speaker feature is used to turn off the internal speakers. It does this by pulling the power amp mute line.

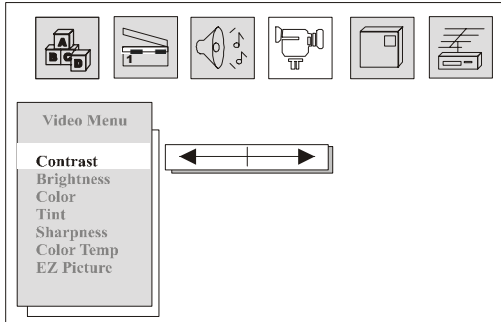
# USER MENUS 221-1387 (Continued)

## EZ SOUND

The EZ Sound Control has six selections the customer can select. The selections available are: Custom, Normal, Stadium, News, Music and Theater. The Left/Right Arrow keys may be used to select any of the choices mentioned.

## VIDEO MENU

All menu items are adjusted with the Left/Right Arrow keys.



### CONTRAST

Contrast adjustment has 64 steps (0 to 63).

### BRIGHTNESS

Brightness adjustment has 64 steps (0 to 63).

### COLOR

Color adjustment has 64 steps (0 to 63).

### TINT

Tint Adjustment has 64 steps (0 to 63). A center mark indicates step 29.

### SHARPNESS

Sharpness adjustment has 64 steps (0 to 63).

### COLOR TEMP

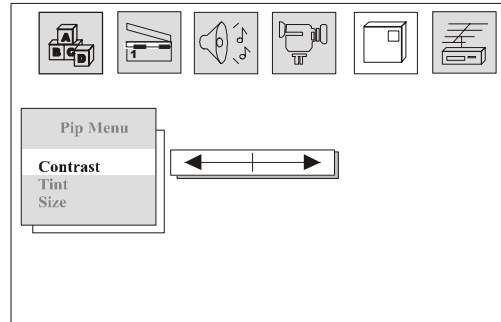
Sets the color temperature. The two settings are COOL and WARM.

### EZ PICTURE

This feature allows the customer to maintain two separate Contrast, Brightness, Color, Tint, Sharpness setting "Custom" and "Preset". The "Preset" setting is set by the factory.

## PIP MENU

All menu items are adjusted with the Left/Right Arrow keys.



### CONTRAST

Contrast adjustment has 64 steps (0 to 63). A center mark indicates step 31. This item allows the contrast adjustment of the PIP window.

### TINT

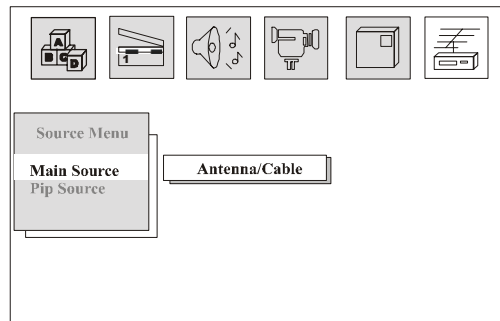
This item allows adjust the PIP tint. Tint Adjustment has 64 steps (0 to 63). A center mark indicates step 31.

### SIZE

This option is used to select size of the PIP window. The customer may select the PIP window size either large or small.

## SOURCE MENU

This menu has two items, Main Source and PIP Source. The selection of either Main Source or PIP Source determines the signal that feeds the video processor. The options available are Antenna/Cable or Video.





# USER MENUS 221-1387 (Continued)

## MAIN SOURCE

The selection of Main Source determines the signal that feeds the video processor

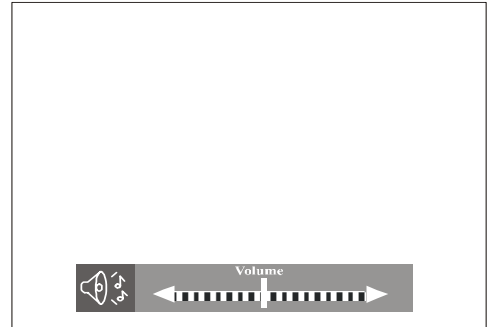
## PIP SOURCE

The selection of PIP Source determines the signal that feeds the video processor.

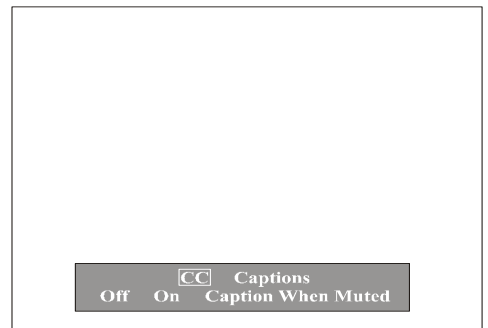
## CHANNEL/TIME/AUDIO DISPLAY



## VOLUME DISPLAY



## CLOSED CAPTION DISPLAY



## USER MENUS 221-1387 (Continued)

Channel Labels						
A&E	CMTV	ESPN	HSE	NOS	TBN	VC
ABC	CNBC	ESPN2	HSN	PBS	TELE	VCR
ACTS	CNN	ET	IC	PLAY	TLC	VH-1
ADC	COM	EWTN	INSP	PTL	TMC	VISN
AMC	CSPN	FAM	JCN	QVC	TNN	VJN
BCC	CSP2	FNN	LIFE	RDS	TNT	WB
BET	CTN	FOX	MAX	REQ	TRAV	WGN
BRAV	CTV	F&V	ME/U	SC	TSN	WTBS
CA	DIS	FX	MMT	SCFI	TVA	WWOR
CBC	DISC	GALA	MTV	SHOW	TWC	YTV
CBN	E!	HBO	NBC	SIN	UPN	- - - -
CBS	ENC	HN	NICK	TBS	USA	None
NOTE: Selecting the "- - -" label option means the channel will not be displayed on the channel/time/audio signal display. Selecting the "None" option means the channel will not have a label.						

### MOTION PICTURE ASSOCIATION OF AMERICA (MPAA) RATING SYSTEM

G	General Audiences	Content not offensive to most viewers.
PG	Parental Guidance Suggested	Content is such that parents may not want their children to view the program.
PG-13	Parental Guidance Suggested	Program is inappropriate for preteens, with a greater degree of offensive material than a PG-rated program.
R	Restricted viewing	Not for children under age 17. Strong elements of sex and/or violence.
NC-17	Restricted Viewing	Not for children under age 17 under any circumstances. Strong sexual content.
X	Hard Core Films	Same as NC-17 rating.

**Note:** *Zenith Electronics Corporation is not liable for any program content that appears when using this rating system; as always, user discretion is advised.*

### TV PARENTAL GUIDELINE RATING SYSTEM

G	General Audiences	Content not offensive to most viewers.
TV-G	General Audience	Considered suitable for all audiences; children may watch unattended.
TV-PG	Parental Guidance Suggested	Unsuitable for younger children, may contain: Suggestive Dialog, Bad Language, Sex, and Violence Scenes.
TV-14	Parents Strongly Cautioned	Unsuitable for children under 14, may contain: Strong Dialog, Bad Language, Sex, and Violence Scenes.
TV-MA	Mature Audience Only	Adults only, may contain: Strong Dialog, Bad Language, Sex, and Violence Scenes.

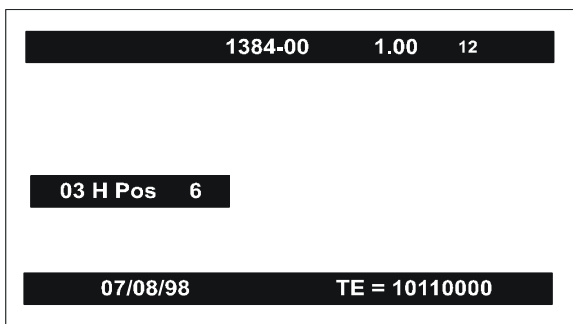
### CHILDRENS' CLASSIFICATIONS

TV-Y	Children	Considered suitable for all children under 7 years old.
TV-Y7	Children 7 and over	Considered suitable for children over 7, may contain Fantasy Violence Scenes.

# INSTALLERS MENU

## SERVICE MENU ADJUSTMENTS

Accessing the Service Menu can only be accomplished by using the remote control. Press and hold the **MENU** key until the User Menu display disappears, then press **9876**, and then **ENTER** to access the Service Menu.



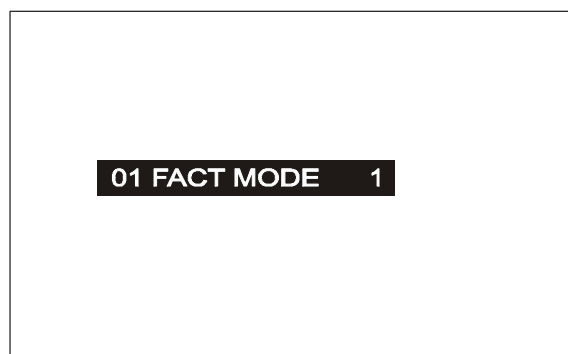
The black bar near the top of the screen indicates the part number of the software in the TV set. To the right is a number indicating that the module has been tested. The date on the black bar near the bottom of the screen indicates the date the module went through the factory.

When the Service menu appears, it displays the fifth Service Menu item: HORIZ POS. Use the SELECT UP/DOWN keys to toggle through all of the adjustments. Use ADJUST to make a change to the selected item.

**00 F MODE:** (Factory Mode) Use SELECT UP and DOWN Keys to select item #01, the first item in the Service Menu: Factory Mode. This item number is used by the Factory when the module is being tested. It has three positions: 0, 1 and 2. In the field, this item should always be left "Off". Zero is "Off".

When the Factory Mode is off, only the first twenty items in the Service Menu can be accessed. They appear one at a time near the middle left of the screen. When the Factory Mode is set to 1, 46 menu items are available. In the Factory Mode 2 position, all 49 menu items are available.

In Factory Mode 1 or 2, only the selected menu item is displayed, near the top of the screen, as shown in the figure.



When the Factory Mode is "On", the AC Power -On feature is always enabled regardless of the setting of "AC ON" in the Service Menu. The TV set will automatically come on when AC is applied.

Use the remote to reenter the Service Menu to turn Factory Mode off. The Factory Mode may also be turned off by setting the clock, or running the Auto Program feature in the customer Set Up menu.

# INSTALLERS MENU 221-1384

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**01 PRE PX:** Stores customer menu adjustments in the nonvolatile memory of the EAROM. Selections are Custom/ Preset-Store. Settings for Contrast, Brightness, Color and tint are stored in this manner. 0 is custom and 1 is Preset stored.

**02 V POS:** Moves On-Screen Displays vertically. The Range is from 0 - 25. This adjustment is generally set at 5.

**03 H POS:** Moves On-Screen Displays horizontally. Range is from 1 - 15. Generally set at 9.

**04 LEVEL:** There are three positions: 0, 1, and 2. The three different positions are used at the factory to program the module for the correct features. In order to change the level, short pins 3 and 4 together on connector 4G9 on the main module. The connector is located on the left hand side of the module.

*Note: Be careful, shorting the wrong pins could damage the module. Always remember to remove the jumper after setting the level.*

**05 BAND:** There are eight positions: 0 - 7.

0 is Broadcast fixed	4 is Broadcast afc
1 is CATV afc	5 is CATV fixed
2 is HRC afc	6 is HRC fixed
3 is ICC afc	7 is ICC fixed

**06 AC ON:** There are two positions, 0 is off and 1 is on. When set to on, the TV will turn on and off when AC power is applied.

**07 RFB PF:** (RF Bandpass) Sets adjustment range of the user control brightness in therefore mode. Range is 0 - 1. Set to 1.

**08 3.5T:** (3.58 MHz Trap) Zero is off, 1 is on. Set to zero. For normal TV operation, set to 1 if Y/C is used or chassis has a comb filter.

**09 RF BRT:** (RF brightness) Sets adjustment range of customer control for brightness in RF mode. Range is 0 - 63. A typical value is 30.

**10 AX BRT:** (Auxiliary Brightness) Sets adjustment range of customer control for brightness in AUX mode. Range is 0 - 63. Typical value is 30. the channel number.

**11 MAX CON:** Sets adjustment range of customer control for contrast. Range is from 0 - 63. Set to 63.

**12 V SIZE:** (Vertical Size) Range is 0-254.

**13 H SIZE:** (Horizontal Size) Range is 0-254.

**14 V PHASE:** (Vertical Phase) Range is 0 - 7. Set to 0.

**15 H PHASE:** (Horizontal Phase) Range is from 0 - 31. Set to 18.

**16 AUDLVL:** Sound Attenuation range is 0-63. Set to 46.

**17 RF AGC:** (Rf Automatic Gain Control) Range is from 0 - 63. 48 is a general setting. Tune in weakest available channel and adjust for a snow- free picture.

**18 H AFC:** Range is 0 - 1. Set to 0. 0=AFC2 Normal. 1=AFC2 X 3.

**19 WHCOMP:** (White Compression) The range is 0 to 1. Set to 0. 0 = Enable and 1 = Disable.

**20 60HZSW:** A sync stability item. Range is 0 - 1. Zero is off. Set to 0.

**21 PIFVCO:** Range is 0 - 127.

**Items 22 through 34 vary with CRT\***

**22 R CUT:** B&W tracking adjustment. Range is 0 to 255. Typical value is 20.

**23 G CUT:** B&W tracking adjustment. Range is 0 - 255. Typical value is 0.

**24 B CUT:** B&W tracking adjustment. Range is 0 - 255. Typical value is 28.

**25 G GAIN:** B&W tracking adjustment. Range is 0 - 255. Typical value is 45.

**26 B GAIN:** B&W tracking adjustment. Range is 0 - 254. Typical value is 70.

**27 CTYPE:** (Chasis Type).

**28 SCROLL:** Selects the method the User Menus will appear on the screen. 1 is On which is Scroll Off.

**29 KEYS:** Set to 1 for the 6 button keyboard.

**30 SPKRSW:** (Internal Speaker Switch) Range is 0-1.

**31 SURF:** (Surf Mode) Range is 0-1.

**32 A ATT:** (Audio Attenuator) Range is 0-15.

**33 ASPECTRAL:** Adjustment of Stereo separation (3KHz). Range is 0-99.

**34 WBAND:** (Wide Band Low Frequency Separation) Range is 0-63.

\* Adjust only if CRT has been changed. The "CUT" adjustments affect the Lowlights and the "GAIN" adjustments affect the Highlights.

# INSTALLERS MENU 221-1384 (continued)

## CA CONSUMER CHASSIS

### FACTORY MENU RECOMMENDED SETTINGS

ITEM	RANGE	25"	27"	DESCRIPTION
00 F MODE	0-1	0	0	Factory mode - refer to page 2-1
01 PRE PX	0-1	0	0	Used to store customer menu adjustments
02 V POS	0-24	13	13	Moves On Screen display vertically
03 H POS	0-20	6	6	Moves On Screen display horizontally
04 LEVEL	0-1	1	1	
05 BAND	0-7	0	0	Broadcast Band adjustment
06 AC ON	0-1	0	0	AC power feature

### TECHNICAL SETTINGS

07 RFB PF	0-1	1	1	Control for brightness in therefore mode
08 3.5T	0-1	0	0	3.58 MHz Trap
09 RF BRT	0-63	33	33	Control for brightness in RF mode
10 AX BRT	0-63	33	33	Control for brightness in AUX mode
11 MAX CON	0-63	63	63	Control for contrast
12 VSIZE	0-63	145	125	Vertical Size
13 HSIZE	0-254	0	0	Horizontal size
14 V PHASE	0-7	2	2	Shifts picture vertically
15 H PHASE	0-31	14	14	Shifts picture horizontally
16 AUDLVL	0-63	46	46	Sound Attenuation
17 RF AGC	0-63	31	31	Weak channel adjustment
18 H AFC	0-1	1	1	Horizontal Automatic Frequency control
19 WHCOMP	0-1	0	0	White compression
20 60HZSW	0-2	2	2	60 Hertz Switched
21 PIFVCO	1-127	31	31	PIF Voltage Controlled Oscillator

### COLOR TEMP STARTING VALUE

22 R CUT	0-254	0	0	B&W tracking adjustment
23 G CUT	0-254	0	0	B&W tracking adjustment
24 B CUT	0-254	0	0	B&W tracking adjustment
25 G GAIN	0-254	103	103	B&W tracking adjustment
26 B GAIN	0-254	75	75	B&W tracking adjustment
27 CTYPE	0-3	2	2	Chasis type
28 SCROLL	0-1	0	0	User Menu scroll type
29 KEYS	0-1	0	0	Keyboard type

### AUDIO SETTINGS

30 SPKRSW	0-1	0	0	Internal Speaker Switch
31 SURF	0-1	0	0	Surf Mode
32 A ATT	0-15	9	9	Audio Attenuator
33 ASPECTRAL	0-63	31	31	Adjustment of Stereo separation
34 WBAND	0-63	31	31	Wide band Low Frequency Separation

# INSTALLERS MENU 221-1385

**01 PRE PX:** Stores customer menu adjustments in the nonvolatile memory of the EAROM. Selections are Custom/ Preset-Store. Settings for Contrast, Brightness, Color and tint are stored in this manner. 0 is custom and 1 is Preset stored.

**02 V POS:** Moves On-Screen Displays vertically. The Range is from 0 - 25. This adjustment is generally set at 5.

**03 H POS:** Moves On-Screen Displays horizontally. Range is from 1 - 15. Generally set at 9.

**04 LEVEL:** There are three positions: 0, 1, and 2. The three different positions are used at the factory to program the module for the correct features. In order to change the level, short pins 3 and 4 together on connector 4G9 on the main module. The connector is located on the left hand side of the module.

**Note: Be careful, shorting the wrong pins could damage the module. Always remember to remove the jumper after setting the level.**

**05 BAND:** There are eight positions: 0 - 7.

0 is Broadcast fixed	4 is Broadcast afc
1 is CATV afc	5 is CATV fixed
2 is HRC afc	6 is HRC fixed
3 is ICC afc	7 is ICC fixed

**06 AC ON:** There are two positions, 0 is off and 1 is on. When set to on, the TV will turn on and off when AC power is applied.

**07 RFB PF:** (RF Bandpass) Range is 0-1.

**08 3.5T:** (3.58 MHz Trap) Zero is off, 1 is on. Set to zero. For normal TV operation, set to 1 if Y/C is used or chassis has a comb filter.

**09 RF BRT:** (RF brightness) Sets adjustment range of customer control for brightness in RF mode. Range is 0 - 63. A typical value is 30.

**10 AX BRT:** (Auxiliary Brightness) Sets adjustment range of customer control for brightness in AUX mode. Range is 0 - 63. Typical value is 30. the channel number.

**11 MAX CON:** Sets adjustment range of customer control for contrast. Range is from 0 - 63. Set to 63.

**12 V SIZE:** (Vertical Size) Range is 0-254.

**13 H SIZE:** (Horizontal Size) Range is 0-254.

**14 V PHASE:** (Vertical Phase) Range is 0 - 7. Set to 0.

**15 H PHASE:** (Horizontal Phase) Range is from 0 - 31. Set to 18.

**16 AUDLVL:** Sound Attenuation range is 0-63. Set to 46.

**17 RF AGC:** (Rf Automatic Gain Control) Range is from 0 - 63. 48 is a general setting. Tune in weakest available channel and adjust for a snow- free picture.

**18 H AFC:** Range is 0 - 1. Set to 0. 0=AFC2 Normal. 1=AFC2 X 3.

**19 WHCOMP:** (White Compression) The range is 0 to 1. Set to 0. 0 = Enable and 1 = Disable.

**20 60HZ SW:** A sync stability item. Range is 0 - 1. Zero is off. Set to 0.

**21 PIFVCO:** Range is 0 - 127.

**Items 22 through 26 vary with CRT\***

**22 R CUT:** B&W tracking adjustment. Range is 0 to 255. Typical value is 20.

**23 G CUT:** B&W tracking adjustment. Range is 0 - 255. Typical value is 0.

**24 B CUT:** B&W tracking adjustment. Range is 0 - 255. Typical value is 28.

**25 G GAIN:** B&W tracking adjustment. Range is 0 - 255. Typical value is 45.

**26 B GAIN:** B&W tracking adjustment. Range is 0 - 254. Typical value is 70.

**27 SCROLL:** Selects the method the User Menus that will appear on the screen. 1 is On which is Scroll Off.

**28 6 KEYS:** Set to 1 for the 6 button keyboard.

**29 A ATT:** (Audio Attenuator) Range is 0-63.

**30 A VCO:** (Audio Decoder Oscillator) Range is 0-63.

**31 AFILTER:** (Audio Filter) Range is 0-63.

**32 ASPECTRAL:** (High Frequency Separation) Range is 0-63.

**33 WBAND:** (Wide Band Low Frequency Separation) Range is 0-63.

**34 IN OSD:** (On Screen Display Internal Oscillator) Range is 0-1.

**35 OSD FRAME:** (On Screen Display Frame) Range is 0-1.

**36 ASS ON:** (Automatic Sleep System) Range is 0-1.

## Differences for 221-1385-01

**35 XTAL:** External Crystal. Range is 0-1.

\* Adjust only if CRT has been changed. The "CUT" adjustments affect the Lowlights and the "GAIN" adjustments affect the Highlights.

# INSTALLERS MENU 221-1385 (continued)

## CA CONSUMER CHASSIS

### FACTORY MENU RECOMMENDED SETTINGS

ITEM	RANGE	25"	27"	32"	36"	DESCRIPTION
00 F MODE	0-1	0	0	0	0	Factory mode - refer to page 2-1
01 PRE PX	0-7	0	0	0	0	Used to store customer menu adjustments
02 V POS	0-30	15	15	15	15	Moves On Screen display vertically
03 H POS	0-45	9	9	9	9	Moves On Screen display horizontally
04 LEVEL	0-2	1	1	1	1	
05 BAND	0-7	0	0	0	0	Broadcast Band adjustment
06 AC ON	0-1	0	0	0	0	AC power feature

### TECHNICAL SETTINGS

07 RFB PF	0-1	1	1	1	1	Control for brightness in therefore mode
08 3.5T	0-1	1	1	1	1	3.58 MHz Trap
09 RF BRT	0-63	38	33	38	33	Control for brightness in RF mode
10 AX BRT	0-63	38	33	38	33	Control for brightness in AUX mode
11 MAX CON	0-63	63	63	63	63	Control for contrast
12 V SIZE	0-254	145	125	120	174	Vertical Size
13 H SIZE	0-254	0	0	174	120	Horizontal size
14 V PHASE	0-7	2	0	2	1	Shifts picture vertically
15 H PHASE	0-31	14	17	14	14	Shifts picture horizontally
16 AUDLVL	0-63	46	46	46	46	Sound Attenuation
17 RF AGC	0-63	31	31	31	31	Weak channel adjustment
18 H AFC	0-1	1	1	1	1	Horizontal Automatic Frequency control
19 WHCOMP	0-1	0	0	0	0	White compression
20 60HZSW	0-2	2	2	2	2	60 Hertz Switched
21 PIFVCO	1-127	31	31	31	31	PIF Voltage Controlled Oscillator

### COLOR TEMP STARTING VALUE

22 R CUT	0-254	0	0	0	0	B&W tracking adjustment
23 G CUT	0-254	0	0	0	0	B&W tracking adjustment
24 B CUT	0-254	0	0	0	0	B&W tracking adjustment
25 G GAIN	0-254	86	103	81	90	B&W tracking adjustment
26 B GAIN	0-254	82	75	75	90	B&W tracking adjustment
27 SCROLL	0-1	0	0	0	0	User Menu scroll type
28 6 KEYS	0-1	0	0	0	0	Keyboard type

### AUDIO SETTINGS

29 A ATT	0-15	9	9	9	9	Audio Attenuator
30 A VCO	0-63	31	31	31	31	Audio Decoder Oscillator
31 AFILTER	0-63	31	31	31	31	Audio Filter
32 ASPECTRAL	0-63	31	31	31	31	Adjustment of Stereo separation
33 WBAND	0-63	31	31	31	31	Wide band Low Frequency Separation
34 IN OSDC	0-1	0	0	0	0	On Screen Display Internal Oscillator
35 OSD FRAME	0-1	0	0	0	0	On Screen Display Frame
36 ASS ON	0-1	0	0	0	0	Automatic Sleep System

### DIFFERENCES FOR 221-1385-01

35 XTAL	0-1	0	0	0	0	External Crystal
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**Note: If you change the EPROM, change the microprocessor from 221-1385-00 to 221-1385-01**

# INSTALLERS MENU 221-1386

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**01 PRE PX:** Used to store the customer menu adjustments in the non-volatile memory of the EAROM . Settings for Contrasts, Brightness, Color and Tint are stored in this manner, 0 is custom and 7 is Pre-set stored.

**02 V POS:** Moves On Screen Displays vertically. Range is 0-30 .

**03 H POS:** Moves On Screen Displays horizontally. Range is 0-45 .

**04 LEVEL:** There are three positions, 0, 1 and 2 . The three different positions are used at the factory to program the module for the correct features . In order to change the level, short pins 3 and 4 together on connector 4G9 on the main module. The connector is located on the left hand side of the module just to the Micro IC6000 .

**Note: Be careful, shorting the wrong pins could damage the module. Always remember to remove the jumper after setting the level.**

Level 0 and 2 is used for Private Label sets. Level 1 and 2 are used for Zenith sets . In the private label mode the IR code is 21 or 121 .

**05 BAND:** There are eight positions. 0 is Broadcast fixed, 1 is CATV afc, 3 is ICC afc, 4 is Broadcast afc, 5 CATV fixed, 6 is HRC fixed, and 7 is ICC fixed.

**06 AC ON:** There are two positions, 0 is off and I is AC On. In On position set will turn on and off when AC power is applied and removed.

**07 RFB PF:** (RF Bandpass) Range is 0-1.

**08 3.5T:** 3.58 MHz trap. Range is 0-1.

**09 RF BRT:** (RF Brightness) Sets adjustment range of the customer control, for brightness in RF mode. Range is 0-63

**10 AX BRT:** (Auxiliary Brightness) Sets adjustment range of the customer control, for brightness in AUX mode. Range is 0-63.

**11 MAX CON:** (Max Contrast) Set adjustment range of customer control for contrast. Range is 0-63

**12 V SIZE:** (Vertical Size) Adjust the size of the picture vertically. Range is 0-254.

**13 H SIZE:** (Horizontal Size) Adjust the size of the picture horizontally. Range is 0-254.

**14 V PHASE:** (Vertical Phase) Shifts picture vertically. Range is 0-7

**15 H PHASE:** (Horizontal Phase) shifts picture horizontally, Range is 0-31.

**16 AUDLVL:** (Audio Level) Set gain for Composite Audio from Video processor. Range is 0-63.

**17 RF AGC:** Range is 0-63

**18 H AFC:** There are two settings 0 and 1 . Settings is usually 1.

**19 WHCOMP:** (White Compression) There are two settings 0 and 1 . Settings is 0 .

**20 60 HZSW:** (60 Hertz compression ) There are two settings 0 and 2 . Settings is 0.

**21 PIFVCO:** (PIF Voltage Controlled Oscillator) Range is 0-127.

**Items 22 through 26 vary with CRT\***

**22 R CUT:** B&W tracking adjustment. Range is 0 to 255. Typical value is 20.

**23 G CUT:** B&W tracking adjustment. Range is 0 - 255. Typical value is 0.

**24 B CUT:** B&W tracking adjustment. Range is 0 - 255. Typical value is 28.

**25 G GAIN:** B&W tracking adjustment. Range is 0 - 255. Typical value is 45.

**26 B GAIN:** B&W tracking adjustment. Range is 0 - 254. Typical value is 70.

**27 SCROLL:** Selects the method the User Menus that will appear on the screen . Scroll Off is 1, 1 is On.

**28 6 KEYS:** Set to 1 for the 6 button keyboard.

**29 A ATT:** (Audio Attenuator) Range is 0-15

**30 ASPECTRAL:** High Frequency separation . Range is 0-63

**31 WBAND:** (Wide Band Low Frecuency Separation) Range is 0-63.

**32 PIP X1 POS:** Range is 0-254

**33 PIP Y1 POS:** Range is 0-254

**34 PIP X2 POS:** Range is 0-254

**35 PIP Y2 POS:** Range is 0-254

**36 PIP BRIGHTNESS:** Range is 0-254

**37 PIPR CONTRAST:** Range is 0-127

**38 PIPG CONTRAST:** Range is 0-127

**39 PIPB CONTRAST:** Range is 0-127

**40 PIP ADJUST:** Range is 0-15

**41 PIPY DELAY:** Range is 0-15

**42 PIP BGSTART:** (PIP Burst Gate Start) Range is 0-31.

**43 PIP ACCLEVEL:** Range is 0-63

**44 PIP HX:** Range is 0-63

**45 PIP VXS:** Range is 0-63

**46 PIP COMP:** (Pip External Syncronic) Range is 0-3.

## Differences for 221-1386-01

**47 XTAL:** External Crystal. Range is 0-1.

\* Adjust only if CRT has been changed. The "CUT" adjustments affect the Lowlights and the "GAIN" adjustments affect the Highlights.



# INSTALLERS MENU 221-1386 (continued)

## CA CONSUMER CHASSIS

### FACTORY MENU RECOMMENDED SETTINGS

ITEM	RANGE	25"	27"	32"	36"	DESCRIPTION
00 F MODE	0-1	0	0	0	0	Factory mode - refer to page 2-1
01 PRE PX	0-1	0	0	0	0	Used to store customer menu adjustments
02 V POS	0-30	15	15	15	15	Moves On Screen display vertically
03 H POS	0-45	9	9	9	9	Moves On Screen display horizontally
04 LEVEL	0-2	1	1	1	1	
05 BAND	0-7	0	0	0	0	Broadcast Band adjustment
06 AC	0-1	0	0	0	0	AC power feature

### TECHNICAL SETTINGS

07 RFB PF	0-1	1	1	1	1	Control for brightness in therefore mode
08 3.5T	0-1	0	0	0	0	3.58 MHz Trap
09 RF BRT	0-63	33	33	33	33	Control for brightness in RF mode
10 AX BRT	0-63	33	33	33	33	Control for brightness in AUX mode
11 MAX CON	0-63	63	63	63	63	Control for contrast
12 V SIZE	0-254	145	125	120	175	Vertical Size
13 H SIZE	0-254	0	0	174	120	Horizontal size
14 V PHASE	0-7	2	0	2	1	Shifts picture vertically
15 H PHASE	0-31	14	17	14	14	Shifts picture horizontally
16 AUDLVL	0-63	46	46	46	46	Sound Attenuation
17 RF AGC	0-63	31	31	31	31	Weak channel adjustment
18 H AFC	0-1	1	1	1	1	Horizontal Automatic Frequency control
19 WHCOMP	0-1	0	0	0	0	White Compression
20 60HZSW	0-2	2	2	2	2	60 Hertz Switched
21 PIFVCO	1-127	31	31	31	31	PIF Voltage Controlled Oscillator

### COLOR TEMP STARTING VALUE

22 R CUT	0-254	0	0	0	0	B&W tracking adjustment
23 G CUT	0-254	0	0	0	0	B&W tracking adjustment
24 B CUT	0-254	0	0	0	0	B&W tracking adjustment
25 G GAIN	0-254	86	103	81	90	B&W tracking adjustment
26 B GAIN	0-254	82	75	75	90	B&W tracking adjustment
27 SCROLL	0-1	0	0	0	0	User Menu scroll type
28 6 KEYS	0-1	0	1	0	0	Keyboard type

### AUDIO SETTINGS

29 A ATT	0-15	9	9	9	9	Audio Attenuator
30 ASPECTRAL	0-63	31	31	31	31	Adjustment of Stereo separation
31 WBAND	0-63	31	31	31	31	Wide Band Low Frequency Separation

### PIP SETTINGS

32 PIP X1 POS	0-254	17	17	17	17	PIP Position X <sub>1</sub>
33 PIP Y1 POS	0-254	25	25	25	25	PIP Position Y <sub>1</sub>
34 PIP X2 POS	0-254	113	113	113	113	PIP Position X <sub>2</sub>
35 PIP Y2 POS	0-254	143	143	143	143	PIP Position Y <sub>2</sub>
36 PIP BRIGHTNESS	0-254	205	205	205	205	PIP Brightness
37 PIPR CONTRAST	0-127	50	50	50	50	PIP Red Contrast
38 PIPG CONTRAST	0-127	50	50	50	50	PIP Green Contrast
39 PIPB CONTRAST	0-127	50	50	50	50	PIP Blue Contrast
40 PIP ADJUST	0-15	2	2	2	2	PIP Adjust
41 PIPY DELAY	0-15	4	4	4	4	PIP Y Delay Luma
42 PIP BGSTART	0-31	10	10	10	10	PIP Burst Gate Start
43 PIP ACCLEVEL	0-63	20	20	20	20	PIP Color Gain
44 PIP HX	0-63	30	30	30	30	PIP Horizontal Phase
45 PIP VXS	0-63	40	41	41	41	PIP Vertical Phase
46 PIP COMP	0-3	2	2	2	2	PIP External Synchronic

### DIFFERENCES FOR 221-1386-01

47 XTAL	0-1	0	0	0	0	External Crystal
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**Note:** If you change the EPROM, change the microprocessor from 221-1386-00 to 221-1386-01

# INSTALLERS MENU 221-1387

**01 PRE PX:** Used to store the customer menu adjustments in the non-volatile memory of the EAROM . Settings for Contrasts, Brightness, Color and Tint are stored in this manner. 0 is custom and 7 is Pre-set stored.

**02 V POS:** Moves On Screen Displays vertically. Range is 0-30. Generally set at

**03 H POS:** Moves On Screen Displays horizontally. Range is 0-45 . Generally set at

**04 LEVEL:** There are three positions, 0, 1 and 2 . The three different positions are used at the factory to program the module for the correct features . In order to change the level, short pins 3 and 4 together on connector 4G9 on the main module . The connector is located on the left hand side of the module just to the Micro IC6000 .

**Note: Be careful, shorting the wrong pins could damage the module. Always remember to remove the jumper after setting the level.**

Level 0 and 2 is used for Private Label sets. Level 1 and 2 are used for Zenith sets . In the private label mode the IR code is 21 or 121 .

**05 BAND:** There are eight positions. 0 is Broadcast fixed, 1 is CATV afc, 3 is ICC afc, 4 is Broadcast afc, 5 CATV fixed, 6 is HRC fixed, and 7 is ICC fixed.

**06 AC ON:** There are two positions, 0 is off and I is AC On. In On position set will turn on and off when AC power is applied and removed.

**07 RFB PF:** (RF Bandpass) Range is 0-1.

**08 3.5T:** 3.58 MHz trap. Range is 0-1

**09 RF BRT:** (RF Brightness) Sets adjustment range of the customer control, for brightness in RIF mode. Range is 0-63

**10 AUX BRT:** (Auxiliary Brightness) Sets adjustment range of the customer control, for brightness in AUX mode. Range is 0-63,

**11 V SIZE:** (Vertical Size) Adjust the size of the picture vertically. Range is-0-254.

**12 H SIZE:** (Horizontal Size) Adjust the size of the picture horizontally. Range is 0-254.

**13 V PHASE:** (Vertical Phase) Shifts picture vertically . Range is 0-7

**14 H PHASE:** (Horizontal Phase) shifts picture horizontally. Range is 0-31.

**15 AUDLVL:** (Audio Level) Set gain for Composite Audio -from Video processor. Range is 0-63.

**16 RIF AGC:** Range is 0-63

**17 H AFC:** There are two settings 0 and 1 . usually 1.

**18 60 HZSW:** (60 Hertz compression) There are two settings 0 and 2. Set to 0.

**19 PIFVCO:** (PIF Voltage Controlled Oscillator) Range is 0-127.

**Items 20 through 24 vary with CRT\***

**20 R CUT:** Range is 0-254

**21 G CUT:** Range is 0-254

**22 B CUT:** Range is 0-254

**23 G GAIN:** (Green Gain) Range is 0-254

**24 B GAIN:** (Blue Gain) Range is 0-254

**25 6 KEYS:** Set to 1 for the 6 button keyboard

**27 A VCO:** (Audio Decoder Oscillator) Range is 0-63.

**28 AFILTER:** (Audio Filter) Range is 0-63.

**29 ASPECTRAL:** High Frequency separation . Range is 0-63.

**30 WBAND:** (Wide Band Low Frequency Separation) Range is 0-63.

**31 PIP X1 POS:** Range is 0-254

**32 PIP Y1 POS:** Range is 0-254

**33 PIP X2 POS:** Range is 0-254

**34 PIP Y2 POS:** Range is 0-254

**35 PIP BRIGHTNESS:** Range is 0-254

**36 PIPR CONTRAST:** Range is 0-127

**37 PIPG CONTRAST:** Range is 0-127

**38 PIP B CONTRAST:** Range is 0-127

**39 PIP ADJUST:** Range is 0-15

**40 PIPY DELAY:** Range is 0-15

**41 PIP BGSTART:** (PIP Burst Gate Start) Range is 0-31.

**42 PIP ACCLEVEL:** Range is 0-63.

**43 PIP HX:** Range is 0-63.

**44 PIP VXS:** Range is 0-63.

**46 PIP COMP:** Pip external synchronic. Range is 0-3.

## Differences for 221-1387-01

**39 PIPY DELAY:** Range is 0-15

**40 PIP BGSTART:** (PIP Burst Gate Start) Range is 0-31.

**41 PIP ACCLEVEL:** Range is 0-63.

**42 PIP HX:** Range is 0-63

**43 PIP VXS:** Range is 0-63

**44 PIP COMP:** (Pip External Synchronic) Range is 0-3.

**45 XTAL:** (External Crystal) Range 0-1.

\* Adjust only if CRT has been changed. The "CUT" adjustments affect the Lowlights and the "GAIN" adjustments affect the Highlights.

# INSTALLERS MENU 221-1387 (continued)

## CA CONSUMER CHASSIS

### FACTORY MENU RECOMMENDED SETTINGS

ITEM	RANGE	27"	32"	36"	DESCRIPTION
00 F MODE	0-1	0	0	0	Factory mode - refer to page 2-1
01 PRE PX	0-1	0	0	0	Used to store customer menu adjustments
02 V POS	0-30	15	15	15	Moves On Screen display vertically
03 H POS	0-45	9	9	9	Moves On Screen display horizontally
04 LEVEL	0-2	1	1	1	
05 BAND	0-7	0	0	0	Broadcast Band adjustment
06 AC ON	0-1	0	0	0	AC power feature

### TECHNICAL SETTINGS

07 RFB PF	0-1	1	1	1	Control for brightness in therefore mode
08 3.5T	0-1	1	1	1	3.58 MHz Trap
09 RF BRT	0-63	33	33	33	Control for brightness in RF mode
10 AX BRT	0-63	33	33	33	Control for brightness in AUX mode
11 V SIZE	0-254	170	120	175	Vertical Size
12 H SIZE	0-254		174	120	Horizontal size
13 V PHASE	0-7	0	2	1	Shifts picture vertically
14 H PHASE	0-31	13	14	14	Shifts picture horizontally
15 AUDLVL	0-63	46	46	46	Sound Attenuation
16 RF AGC	0-63	31	31	31	Weak channel adjustment
17 H AFC	0-1	1	1	1	Horizontal Automatic Frquency control
18 60 HZSW	0-2	2	2	2	60 Hertz Switched
19 PIFVCO	1-127	31	31	31	PIF Voltage Controlled Oscillator

### COLOR TEMP STARTING VALUE

20 R CUT	0-254	0	0	0	B&W tracking adjustment
21 G CUT	0-254	0	0	0	B&W tracking adjustment
22 B CUT	0-254	0	0	0	B&W tracking adjustment
23 G GAIN	0-254	103	81	90	B&W tracking adjustment
24 B GAIN	0-254	75	75	90	B&W tracking adjustment
25 6 KEYS	0-1	1	0	0	Keyboard type

### AUDIO SETTINGS

26 A ATT	0-15	9	9	9	Audio Attenuator
27 AVCO	0-63	31	31	31	
28 AFILTER	0-63	31	31	31	Audio Filter
29 ASPECTRAL	0-63	31	31	31	Adjustment of Stereo seperation
30 WBAND	0-63	31	31	31	Wide band Low Frequency Separation

### PIP SETTINGS

32 PIP X1 POS	0-254	17	17	17	17	PIP Position X <sub>1</sub>
33 PIP Y1 POS	0-254	25	25	25	25	PIP Position Y <sub>1</sub>
34 PIP X2 POS	0-254	113	113	113	113	PIP Position X <sub>2</sub>
35 PIP Y2 POS	0-254	143	143	143	143	PIP Position Y <sub>2</sub>
36 PIP BRIGHTNESS	0-254	205	205	205	205	PIP Brightness <sub>2</sub>
37 PIPR CONTRAST	0-127	50	50	50	50	PIP Red Contrast
38 PIPG CONTRAST	0-127	50	50	50	50	PIP Green Contrast
39 PIP ADJUST	0-15	2	2	2	2	PIP Adjust
40 PIPY DELAY	0-15	10	10	10	10	PIP Y Delay Luma
41 PIP BGSTART	0-31	10	10	10	10	PIP Burst Gate Start
42 PIP ACC LEVEL	0-63	20	20	20	20	PIP Color Gain
43 PIP HX	0-63	30	30	30	30	PIP Horizontal Phase
44 PIP VXS	0-63	40	41	41	41	PIP Vertical Phase
46 PIP COMP	0-3	2	2	2	2	PIP External Synchronic

### DIFFERENCES FOR 221-1387-01

39 PIPY DELAY	0-15	10	10	10	10	PIP Y Delay Luma
40 PIP BGSTART	0-31	10	10	10	10	PIP Burst Gate Start
41 PIP ACC LEVEL	0-63	20	20	20	20	PIP Color Gain
42 PIP HX	0-63	30	30	30	30	PIP Horizontal Phase
43 PIP VXS	0-63	40	41	41	41	PIP Vertical Phase
44 PIP COMP	0-3	2	2	2	2	PIP External Synchronic
45 XTAL	0-1	0	0	0	0	External crystal

**Note: If you change the EPROM, change the microprocessor from 221-1387-00 to 221-1387-01**



# SERVICING

## HIGH VOLTAGE AND X-RADIATION PROTECTION

A potential source of x-rays is the picture tube, if the high voltage (HV) is out of specification. When the HV is operating properly, there is no x-radiation. For the CA chassis family, the HV has no adjustments. A HV shutdown circuit is used to prevent excessive HV and x-ray emissions.

## THEORY OF OPERATION (SHUTDOWN CIRCUIT)

This circuit basically monitors the sweep pulse voltage derived from the sweep transformer TX3204 pins 5 & 6.

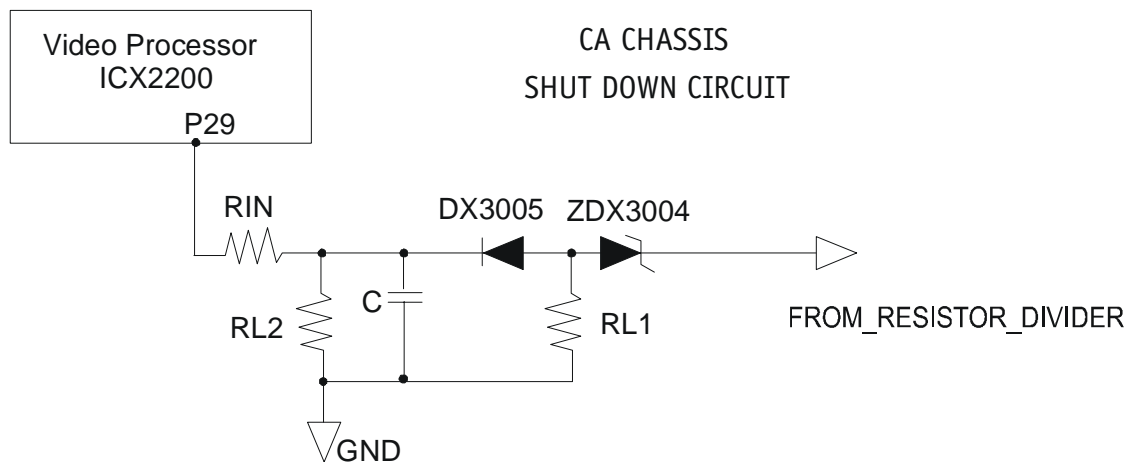
This voltage is rectified, and applied to a 12V zener diode ZDX3004. When the HV reaches its maximum allowed value (see drawing) the zener diode conducts, the voltage on pin 29 of the video processor (ICX2200) increases until it reaches the threshold voltage of 3.5 VDC, and shuts down the TV.

If the shutdown circuit has operated, the microcontroller will prevent the TV from being turned on again, without first having to unplug the AC cord to reset the microcontroller.

**TIP:** Make a momentary short between the OUTPUT and GND of the IC6002 (RESET CIRCUIT) this will reset the microcontroller IC6000.

Apply signal through the video generator or tune the TV color receiver to crosshatch pattern. Connect an accurate HV meter between the picture tube anode and chassis ground. Access Video Menu and adjust Brightness and Contrast controls for minimum screen luminance. Wait until, the Video Menu or display disappear. Read HV meter.

SCREEN SIZE	B+ VDC (0 BEAM)	HV NOM KV	HV MAX KV
<b>COMPONENT LEVEL REPAIR</b>			
25	124.0 +/- 2%	28	29
27	124.0 +/- 2%	27	29
<b>MODULE LEVEL REPAIR ONLY</b>			
32	128.5 +/- 2%	30	31.5
36	128.5 +/- 2%	30	31.5



# SERVICING (continued)

## GENERAL INFORMATION

Servicing the CA chassis is the same as with other Zenith single-board chassis. If the set is dead, first check the standby and switched voltages. If the switched voltages do not appear, check the power "On" circuit. If the power supply is OK and the set will turn On, the Horizontal sweep circuit should be checked next. Is horizontal drive available from the video processor chip? If the sweep system does not start up, sweep-derived voltages will not be generated.

If the sweep and high-voltage circuits are OK and video or audio are missing, then the audio/video/tuner circuits should be checked. If the receiver is working but some feature is not working, check the Service Menu. Bring up the Service menu and check to be sure that all items are set correctly.

## COMPONENT-LEVEL SERVICING

The following troubleshooting information is intended for component servicing on the 19" through 27" models. Replacement modules are available on an exchange basis for the 32" and 36" models.

If the CRT or Video processor IC are replaced, Black/White tracking must be reset. Refer to the Service Menus section of this book for Black/White tracking adjustments.

## STEREO MODULE

When the MTS stereo module is replaced, be sure to unplug AC power cord. This will ensure that the replacement module is recognized by the microprocessor when power is reapplied. If the set is only turned off, the audio module may not operate properly.

After the audio module is replaced, access the Service Menu and be sure the seven stereo adjustments are set properly. These adjustments are Service Items #40 through 46 for the 221-1006-04  $\mu$ P chip, and Service Items #43 through 49 for the 221-1006-05  $\mu$ P chip. Proper settings for these adjustments are printed on the module label along with the bar code on the bar code label.

When troubleshooting video circuits, remember that all video travels through the PIP IC (if used) and the Video/Audio switcher IC. A defect in either of these IC's can result in no video.



## WARNING!

**DO NOT disconnect the Video output module from the CRT when troubleshooting 32" and 36" receivers. If the video output module is removed on these sets while power is ON, the CRT will arc and can be permanently damaged. Also, the technician is in danger of serious shock. There is a termination circuit (W5101) on the CRT module to prevent this from happening**

## SERVICING THE POWER SUPPLY

Check the standby voltages first:

- + VDC at CX3407 (169.7 VDC when 120 VCA)
- + B at CX3420 (B is about 124 VDC for CA 25v and 27v and 130 VDC for CA 32v and 36v)
- +18 DC at CX3424
- +5 DC at pin 3 of ICX3402

Check the following:

- Keyboard input at IC6000 pin 7 and 8
- IR input at IC6000 pin 15
- Power On output at IC6000 pin 32
- Q3402 power supply "turn On" transistor.

Check the Switched Voltages

- +9 volts DC at pin 3 of ICX3401
- +15 volts DC at CX3430

Sweep-derived Voltages

- +25 volts DC at the junction of CX2105 and RX2124
- +35 volts DC at CX3253 and +200 volts DC at the junction of CX3208 AND RX3208

CRT Filament

- Check at pins 1 and 2 of connector 2F5. They should read 6.1 to 6.3 volts AC on a true RMS meter. They will read 7.5 volts AC on a VTVM, and show 22 volts P-P on a scope.

## VIDEO PROCESSOR ICX2200

Check the following key operating Signals and voltages:

- Composite Video Out at pin 47
- Switched Video Out to micro at pin 41
- Tuner composite Video in at pin 37
- Luminance in from PIP at pin 43
- Chroma in from PIP at pin 45

# SERVICE ADJUSTMENTS

Composite Audio out at pin 2  
Horizontal Drive at pin 32  
Vertical Drive at pin 24  
Video output Blue at 2C5 pin 3  
Video output Green at 2C5 pin 2  
Video output Red at 2C5 pin 1  
B+ 9 volts on pins 9, 23, 46, and 48  
Serial Data, Serial Clock at pins 27, 28

## HORIZONTAL CIRCUIT

Check the following:

Horizontal drive to base of QX3203 predriver  
Driver transformer output at base of Q3203  
Shutdown voltage at cathode of ZDX3004  
Scan-derived voltages +25, +35 and +200 volts

## MICROPROCESSOR IC6000

Check the following:

IR in/out on pin 2  
+5 volts on pin 27

Clock Xtal on pins 24, and 25

Serial Data, Serial Clock on pins 36 and 38  
Reset at pin 30

Horiz. Flyback on pin 1, Vert pulse on pin 2  
R, G, B out on pins 50, 51, and 52

## VERTICAL CIRCUIT IC2100

Check the following:

Vertical drive pulse at pin 3  
+25 volts at pins 2, 10 and 11  
Vertical out at pin 1  
Poor Linearity: Check C2102 and C2103

## SERVICE ADJUSTMENTS (Electrical)

### G2 ADJUST

1. Set brightness and contrast in the Video menu to mid range.
2. Set color level to minimum.
3. Connect the output of an NTSC generator to the antenna input on the receiver.
4. Select a color bar signal and turn color off. Adjust the G2 control so that the bar patterns range from completely black to a 'not overdriven' (Not saturated) white. There should be a distinct difference between the black and white bars. Also the different shades of gray should also be distinguishable if the G2 is set correctly.
5. Return color level control to its normal setting. Leave generator connected if the RGB cutoff is to be adjusted.

### VERTICAL SIZE

1. Vertical size adjustment is found in the Factory Menu (item 12).

2. Horizontal size is on the 32" and 36" models. Adjustment is found in the factory Menu (Item 13).

### FOCUS ADJUSTMENT

Connect a color bar pattern to the receiver and adjust the user controls for a good picture. Push the button to the Video Menu, then proceed to adjust the Focus control until distortion of the letters in the menu disappears.

## SERVICE ADJUSTMENTS (Service Menu)

### CA ADJUSTMENTS OF RGB CUTOFFS

1. If the main module or CRT has been replaced, select "Cool" in the user video menu under Color Temp. The sets items G Gain 1 (Green gain cool) and B Gain 1 (Blue gain cool), in the Service menu to the default setting for correct screen size as listed in the Service Menu (See table). Set color level and contrast to minimum, and Tint to mid range.
2. Enter the Service menu to gain access to the cutoff adjustments. (Factory mode item 00 must be set to 1 to gain access to these adjustment).
3. Connected the output of an NTSC generator to the antenna input of the receiver, set the generator to a Pure white signal, chroma off. Adjust the color and contrast to obtain a grey raster picture.
4. Carefully observe which color is predominant on the CRT (Red, green, or blue). Do not adjust the cut off control of this color (Leave it zero). Adjust the other two cut off controls for a smog grey color on the display.
6. Set the generator to a color bar pattern and turn the chroma Off. Check that set displays gray scale from black to white. If black level is too high, readjust RF Brightness (Item 9).
7. Return the color level control to preset.
8. Select Warm in the user video menu under Color Temp. Then adjust items R Cut (22), G Cut (23), B Cut (24), G Gain 2 (25) and B Gain 2 (26) according to the Installer's Menu tables. Readjust each value adding the respective number by looking in the corresponding screen size column.
9. Disable the Factory Menu and select "cool" in the user Video Menu under Color Temp. Factory Mode (Item 00) must be set to zero.

# SERVICE ADJUSTMENTS (continued)

## PURITY & CONVERGENCE SETUP PROCEDURE

### PRELIMINARY SETUP

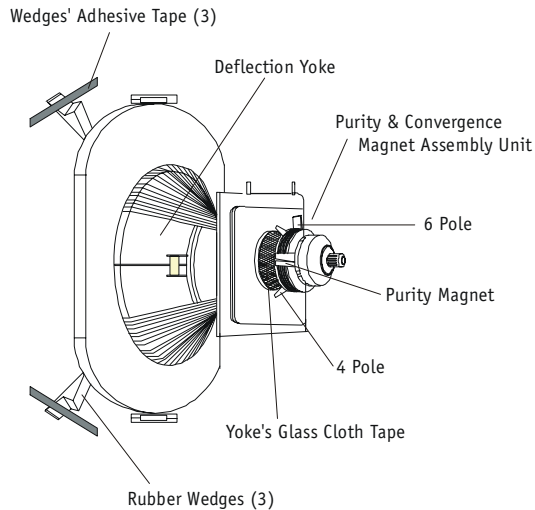
1. Allow the receiver to warm up for 15 to 20 minutes.
2. Degauss the CRT.
3. Connect a crosshatch generator to the receiver and "rough in" the static (center) convergence. Follow the Convergence Procedure.
4. Adjust for best focus.

### PURITY ADJUSTMENT

1. Purity tab positioning.  
Set the 2 pole purity tabs together in the 3 or 9 o'clock positions and the 4-pole and 6-pole purity tabs together in the 12 or 6 o'clock positions.
2. Move yoke to the maximum forward funnel position.
3. Now switch the crosshatch generator to a red field.
4. Pull the yoke toward the rear of the CRT neck, keeping it centered, until a red raster is displayed.
5. If the red raster is not displayed as a pure red field, adjust the 2-pole purity tabs until a pure field is obtained.
6. Check for proper yoke tilt setting.

### CONVERGENCE ADJUSTMENT

1. Release locking assembly.
2. Connect crosshatch generator to the receiver and adjust static (center) convergence as follows:
  - a. Adjust the 4-pole static control by moving the two tabs separately to converge the red and blue lines horizontally. Move the two tabs together around the neck of the CRT (in a 45° arc) from the top-dead-center position to converge the red and blue lines vertically.
  - b. After the 4-pole control has been adjusted to superimpose the red and blue lines on top of one another. Use the 6-pole static adjustment to place the converged red and blue lines over the green line. Move the two tabs together around the neck of the CRT (in a 30° arc) from the top-dead-center position to move the lines vertically. Adjusting the two tabs separately will move the converged beam to the left or right. Using a crosshatch generator capable of producing individual fields, adjust the generator to produce a red field. Use the purity tabs to center a red stripe.



CRT Ring Location Purity  
Adjust Tabs Beam Movement  
for Convergence

Ring Pairs	Rotation direction of Both Tabs	Movement of Red and Blue Beams
6 Pole	Opposite	←(B) (B)→ OR ←(R) (R)→
Convergence R&B over G	Same	↑(B) (R) OR ↑(B) (R)
4 Pole	Opposite	←(B) (B)→ OR (R)→ ←(R)
Convergence R over B	Same	↑(B) (R) OR ↓(B) (R)



# SERVICE ADJUSTMENTS (continued)

## VERTICAL-TILT WEDGE ADJUSTMENT

The vertical lines at 6 and 12 o'clock are converged by vertically tilting the yoke and inserting a wedge at the top of the yoke until it is firmly seated between the CRT glass and the horizontal coils.

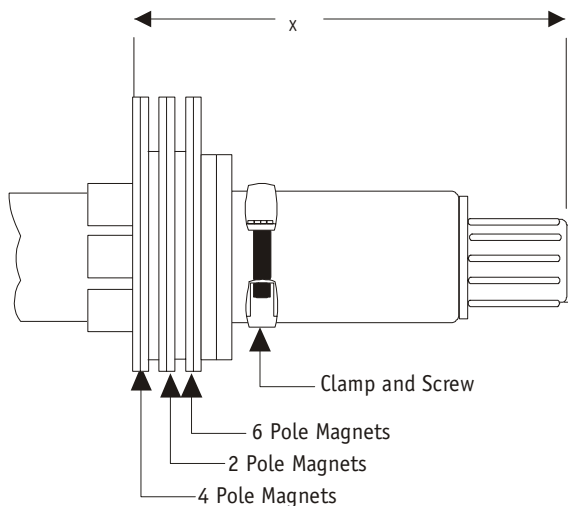
## HORIZONTAL-TILT WEDGE ADJUSTMENT

The vertical lines at 3 o'clock and 9 o'clock are converged by horizontally tilting the yoke and inserting a wedge. Adjust first at 4 or 8 o'clock, whichever has the larger space, until the wedge is firmly seated between the CRT glass and yoke coils. Then, insert the 3rd wedge in the remaining horizontal tilt position until it is firmly seated between the CRT glass and yoke coils. Convergence at 3 and 9 o'clock should be maintained during this operation.

When the 3 wedges are firmly installed and positioned for acceptable convergence, lock the wedges in place by applying a 2.5 inches long strip of tape across the tabs of each wedge, firmly against the CRT glass. The CRT glass surface should be clean and free of dust and other foreign material.

## UNUSUAL TILT CASE

There may be some instances where the picture tube and yoke will require vertical tilt in the opposite (up) direction to obtain convergence. In such cases, insert the vertical tilt wedge at the bottom (6 o'clock) position. Follow through on the horizontal tilt adjustment by using the 2 and 10 o'clock positions and secure each wedge with a piece of tape, as described above.



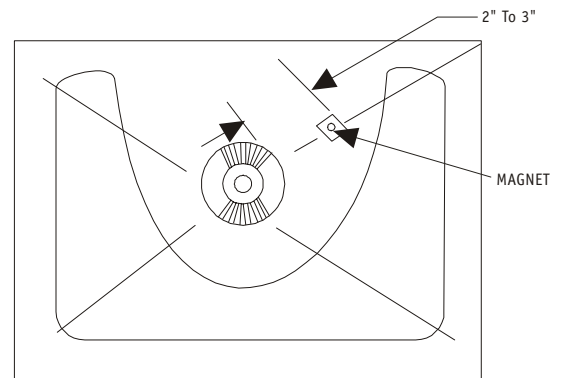
## IMPROVING CRT CORNER PURITY

CRTs that display corner purity problems even after following the service procedures can be modified with a picture correction kit (P/N 949-50). The purity can be improved by placing a picture-correction magnet (included in the kit) on the CRT funnel. Refer to the following modification steps and illustration to place the magnet properly. Fully degauss the CRT before installing correction magnets.

## MODIFICATION

1. Place the magnet on the CRT funnel as shown in the figure displayed below, in the quadrant exhibiting impurity.
2. Rotate the magnet in place to the position shown for best purity.
3. Place a piece of 1/2" by 2" long Fiberglass tape over the magnet to hold it in place.
4. Degauss the CRT once magnet is in place to insure that the magnet is not over the internal magnet shield.

**NOTE:** *If the magnet is placed over the internal magnet shield, any apparent purity correction will disappear after degaussing. Reposition the correction magnet off the internal shield and degauss again.*



# IF AND AUDIO ALIGNMENT PROCEDURE

## VIDEO DETECTOR

If there is no viewable picture on screen, access the Service Menu and check default settings for the following items:

RFAGC			
MICRO	LOCATION	RANGE	PRESET VALUE
221-01384	17	0-63	42
221-01385	17	0-63	42
221-01386	17	0-63	42
221-01387	16	0-63	42

PIFVCO			
MICRO	LOCATION	RANGE	PRESET VALUE
221-01384	21	0-127	52
221-01385	21	0-127	52
221-01386	21	0-127	52
221-01387	21	0-127	52

Tune in a good off air signal. Place a high impedance meter at pin 44 of ICX2200. Adjust to 2.5 volts DC.

## AGC DELAY

With a strong noise free antenna signal, adjust ITEM therefore RIF AGC on the Service Menu to a lower settings until signal gets noisier. Increase settings for a noise free picture.

**Note: If settings goes to high above 50, the tuner input will overload . Under certain conditions, beats will also occur in the picture .**

## AUDIO DETECTOR

If no audio is present, access the Service Menu and check default settings for the following items:

AUD LVL			
MICRO	LOCATION	RANGE	PRESET VALUE
221-01384	16	0-63	46
221-01385	16	0-63	46
221-01386	16	0-63	46
221-01387	16	0-63	46

Tune in a good strong off air signal.

Place a high impedance meter on pin 54 of ICX2200 or from + side of capacitor C1 214. Adjust LL 202 for 4 volts DC.

## MTS AND STEREO DECODER ALIGNMENT

The purpose of this procedure is adjusting registers of SONY audio decoder and processor CXA2054S for MTS models or audio decoder CXA2104S for STEREO models(I 1400 in both cases).

**Note: Alignment should be accomplished at least ten minutes after the TV set had been turned on.**

Five register of the audio processor should be adjusted for MTS models and three for STEREO models. Bits TEST-DA and TEST1 should be set according with the current adjust for MTS models (for STEREO models bits TEST-DA and TEST1 will not be shown on the service menu because their status do not need to be changed to do the adjustments).

Inside of the service menu (only for MTS models):

Both TEST-DA = "0" and TEST1 = "0" conditions are selected when the internal menu is activated.

Enter the "SWAP" key of the remote control, then ten bits registers will display in the bottom of the screen (see the figure 1). The first one is TESTDA register and the second one is TEST1 register.

Enter the "QUIT" key of the remote control in order to set TESTDA = "0" and TEST1 = "1".

Enter again the "QUIT" of the remote control in order to invert the state of the registers.

## AATT Adjust

(for MTS and Stereo models)

Set bits TEST-DA = "0" and TEST1 = '0" of IC1400.

Set the chassis for RF input.

A ATT			
MICRO	LOCATION	RANGE	PRESET VALUE
221-01384	32	0-15	9
221-01385	29	0-15	9
221-01386	29	0-15	9
221-01387	26	0-15	9

Input signal: PIF 30 dBmv modulated with color bars at 85% mod., SIF 19 dBmv modulated with 100 Hz at 25 KHz deviation (100 % mod.), 75 us off.

## IF AND AUDIO ALIGNMENT PROCEDURE (continued)

Adjust **A ATT** register in IC1400 for 490 mVrms ( $\pm 10$ mVrms) in TVOUT-L output, pin 44 of IC1400 for MTS models and at pin 11 for STEREO models.

### Stereo, SAP VCO adjustment (only for MTS models)

Set bits TEST-DA = "1" and TEST1 = "0" of IC1400.

Monitor the TVOUT-R output frequency (pin 43 of IC1400) in a no input state.

Adjust A VCO register of IC1400 so that frequency is as close to 62.936 KHz ( $\pm 0.5$  KHz) as possible.

<b>A VCO</b>			
MICRO	LOCATION	RANGE	PRESET VALUE
221-01384	-	-	-
221-01385	30	0-63	31
221-01386	-	-	-
221-01387	27	0-63	31

### Stereo, SAP dbx filter adjustment (only for MTS models)

Set bits TEST-DA = "0" and TEST1 = "1" of IC1400.

Input 9.4 KHz, 600mVrms to COMP-IN pin 19 of IC1400.

While monitoring the STATUS FLAG (FILADJ bit, see figure 2) of IC1400, adjust A FILTER register. Align with the center of the FILADJ = 1 .

### Separation Adjustment (for MTS and Stereo models)

Set bits TEST-DA = 0 and TEST1 = 0 of IC1400 for MTS models.

Set the chassis for RF input.

Set IC1400 to stereo mode.

a) Input signal: PIF 30 dBmv modulated with color bars at 85% mod., SIF 19 dBmv modulated with stereo signal, 300 Hz at 12.9 KHz deviation (30 % mod.), left channel only, dbx ON.

b) Adjust **WIDEBAND** register to reduce right speaker output at the minimum. Set the frequency only of

<b>ASPECTRAL</b>			
MICRO	LOCATION	RANGE	PRESET VALUE
221-01384	33	0-63	31
221-01385	17	0-63	31
221-01386	17	0-63	31
221-01387	16	0-63	31

<b>WBAND</b>			
MICRO	LOCATION	RANGE	PRESET VALUE
221-01384	34	0-63	31
221-01385	33	0-63	31
221-01386	31	0-63	31
221-01387	30	0-63	31

SIF signal to 3 KHz. Adjust **ASPECTRAL** register to reduce right speaker output at the minimum.



# MODEL PARTS

## B25A02Z

Part #	Description
014-12296-17	CABINET FRONT, TV, MOLDED PLASTIC
014-12297-08	CABINET REAR, TV, MOLDED PLASTIC
020-04330-42	COIL, DEGAUSSER
024-03372	COVER, BLANK, 2 X 5 SPEAKER OPENING
030-01532	DECORATIVE ITEM, LOGO, ZENITH
046-10578	KNOB ARRAY, PUSH BUTTON, 6 POSITION
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
050-02576-08	CONNECTOR AND CABLE ASSEMBLY
095-04456-06	TRANSFORMER, DEFLECTION, YOKE, 25V HIBI COMERCIAL
A63AFW38X	VACUUM TUBE, CRT, COLOR, 25 INCH DIAGONAL
124-00213-23	SPACE COMMAND TRANSMITTER, TV ONLY SC3492Z
152-00335	WEDGE, YOKE SPACER/POSITIONER
192-00916	LENS, IR
206-03551	INSTR BOOK, OPERATION GUIDE
A-07690-06	MAGNET ASSEMBLY, STATIC CONVERGENCE AND PURITY
A-18681-01	LINE CORD ASSY WITH YEONHO CONNECTOR
A-18695-02	GND STRAP ASSY, CRT

## B25A10Z, B25A10ZC, B25A10Z6, B25A10ZC6

Part #	Description
014-12296-17	CABINET FRONT, TV, MOLDED PLASTIC
014-12297-08	CABINET REAR, TV, MOLDED PLASTIC
020-04330-42	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
046-10578	KNOB ARRAY, PUSH BUTTON, 6 POSITION
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
095-04456-06	TRANSFORMER, DEFLECTION YOKE, 25V HIBI COMERCIAL
A63AFW38X	VACUUM TUBE, CRT, COLOR, 25 INCH DIAGONAL
124-00213-23	SPACE COMMAND, TRANSMITTER, TV ONLY SC3492Z
152-00335	WEDGE, YOKE SPACER/POSITIONER
192-00916	LENS, IR
206-03476	INSTR BOOK, OPERATION GUIDE
A-07690-06	MAGNET ASSEMBLY, STATIC CONVERGENCE AND PURITY
A-18681-01	LINE CORD ASSY WITH YEONHO CONNECTOR
A-18695-02	GND STRAP ASSY, CRT

## B25A10ZCF

Part #	Description
014-12296-17	CABINET FRONT, TV, MOLDED PLASTIC
014-12297-08	CABINET REAR, TV, MOLDED PLASTIC
020-04330-42	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
046-10578	KNOB ARRAY, PUSH BUTTON, 6 POSITION
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
095-04456-06	TRANSFORMER, DEFLECTION YOKE, 25V HIBI COMERCIAL
A63AFW38X	VACUUM TUBE, CRT, COLOR, 25 INCH DIAGONAL
124-00213-23	SPACE COMMAND, TRANSMITTER, TV ONLY SC3492Z
152-00335	WEDGE, YOKE SPACER/POSITIONER
192-00916	LENS, IR
206-03476	INSTR BOOK, OPERATION GUIDE

206-03557	INSTR BOOK, OPERATION GUIDE
A-07690-06	MAGNET ASSEMBLY, STATIC CONVERGENCE AND PURITY
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-02	GND STRAP ASSY, CRT

## B25A11Z, B25A11Z6

Part #	Description
014-12296-17	CABINET FRONT, TV, MOLDED PLASTIC
014-12297-09	CABINET REAR, TV, MOLDED PLASTIC
020-04330-42	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
046-10578	KNOB ARRAY, PUSH BUTTON, 6 POSITION
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
095-04456-06	TRANSFORMER, DEFLECTION YOKE, 25V HIBI COMERCIAL
A63AFW38X	VACUUM TUBE, CRT, COLOR, 25 INCH DIAGONAL
124-00233	SPACE COMMAND, TRANSMITTER, MBR3447Z
152-00335	WEDGE, YOKE SPACER/POSITIONER
192-00916	LENS, IR
206-03477	INSTR BOOK, OPERATION GUIDE
A-07690-06	MAGNET ASSEMBLY, STATIC CONVERGENCE AND PURITY
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-02	GND STRAP ASSY, CRT

## B25A11ZF

Part #	Description
014-12296-17	CABINET FRONT, TV, MOLDED PLASTIC
014-12297-09	CABINET REAR, TV, MOLDED PLASTIC
020-04330-42	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
046-10578	KNOB ARRAY, PUSH BUTTON, 6 POSITION
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
095-04456-06	TRANSFORMER, DEFLECTION YOKE, 25V HIBI COMERCIAL
A63AFW38X	VACUUM TUBE, CRT, COLOR, 25 INCH DIAGONAL
124-00233	SPACE COMMAND, TRANSMITTER, MBR3447Z
152-00335	WEDGE, YOKE SPACER/POSITIONER
192-00916	LENS, IR
206-03477	INSTR BOOK, OPERATION GUIDE
206-03556	INSTR BOOK, OPERATION GUIDE
A-07690-06	MAGNET ASSEMBLY, STATIC CONVERGENCE AND PURITY
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-02	GND STRAP ASSY, CRT

## B25A24Z, B25A24Z6

Part #	Description
012-10858-04	MOLDED PLASTIC, PANEL, JACK PACK, CA CHASSIS
014-12143-02	CABINET TRAY, MOLDED PLASTIC
014-12181-09	CABINET REAR, TV, MOLDED PLASTIC
014-12187-14	CABINET FRONT, TV, MOLDED PLASTIC
020-04330-42	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
046-10554	KNOB ARRAY, PUSH-BUTTON, 10 POSITIONS
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
095-04456-06	TRANSFORMER, DEFLECTION YOKE, 25V HIBI COMERCIAL

## MODEL PARTS (Continued)

A63AFW38X	VACUUM TUBE, CRT, COLOR, 25 INCH DIAGONAL
124-00233	SPACE COMMAND, TRANSMITTER, MBR3447Z
152-00335	WEDGE, YOKE SPACER/POSITIONER
192-00858-01	LENS, PRIMARY CONTROLS AND IR
194-02535	PAD, PUSHBUTTONS
206-03479	INSTR BOOK, OPERATION GUIDE
A-07690-06	MAGNET ASSEMBLY, STATIC CONVERGENCE AND PURITY
F-50826	KEYBOARD ASSY, WITH IR RECEIVER, AGUA CHASSIS
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-02	GND STRAP ASSY, CRT

### B25A24ZF

Part #	Description
014-12143-02	CABINET TRAY, MOLDED PLASTIC
014-12181-09	CABINET REAR, TV, MOLDED PLASTIC
014-12187-14	CABINET FRONT, TV, MOLDED PLASTIC
020-04330-42	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
046-10554	KNOB ARRAY, PUSH-BUTTON, 10 POSITIONS
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
095-04456-06	TRANSFORMER, DEFLECTION YOKE, 25V HIBI COMERCIAL
A63AFW38X	VACUUM TUBE, CRT, COLOR, 25 INCH DIAGONAL
124-00233	SPACE COMMAND, TRANSMITTER, MBR3447Z
152-00335	WEDGE, YOKE SPACER/POSITIONER
192-00858-01	LENS, PRIMARY CONTROLS AND IR
194-02535	PAD, PUSHBUTTONS
206-03479	INSTR BOOK, OPERATION GUIDE
206-03555	INSTR BOOK, OPERATION GUIDE
A-07690-06	MAGNET ASSEMBLY, STATIC CONVERGENCE AND PURITY
F-50826	KEYBOARD ASSY, WITH IR RECEIVER, AGUA CHASSIS
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-02	GND STRAP ASSY, CRT

### B25A30ZC

Part #	Description
012-10858-03	MOLDED PLASTIC, PANEL, JACK PACK, CA CHASSIS
014-12038-02	CABINET TRAY, TV, MOLDED PLASTIC
014-12229-17	CABINET FRONT, TV, MOLDED PLASTIC
014-12230-03	CABINET REAR, TV, MOLDED PLASTIC
020-04330-42	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
046-10561	KNOB ARRAY, PUSH BUTTON, 10 POSITIONS
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
095-04456-06	TRANSFORMER, DEFLECTION YOKE, 25V HIBI COMERCIAL
A63AFW38X	VACUUM TUBE, CRT, COLOR, 25 INCH DIAGONAL
124-00229-01	SPACE COMMAND, TRANSMITTER, BIG BUTTON, MBR3346Z
152-00335	WEDGE, YOKE SPACER/POSITIONER
192-00887	LENS, INFRARED
194-02535-01	PAD, PUSHBUTTONS
206-03480	INSTR BOOK, OPERATION GUIDE
A-07690-06	MAGNET ASSEMBLY, STATIC CONVERGENCE AND PURITY

F-50825	KEYBOARD ASSY, WITH IR RECEIVER, AGUA CHASSIS
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-02	GND STRAP ASSY, CRT

### B25A30ZCF

Part #	Description
012-10858-03	MOLDED PLASTIC, PANEL, JACK PACK, CA CHASSIS
014-12038-02	CABINET TRAY, TV, MOLDED PLASTIC
014-12229-17	CABINET FRONT, TV, MOLDED PLASTIC
014-12230-03	CABINET REAR, TV, MOLDED PLASTIC
020-04330-42	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
046-10561	KNOB ARRAY, PUSH BUTTON, 10 POSITIONS
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
095-04456-06	TRANSFORMER, DEFLECTION YOKE, 25V HIBI COMERCIAL
A63AFW38X	VACUUM TUBE, CRT, COLOR, 25 INCH DIAGONAL
101-08795	LABEL, BLANK, WHITE
112-00932-01	SCREW, THD CUT, 4-24 X 0.312 TP BT BP, PAN HEAD, PHILLIPS
124-00229-01	SPACE COMMAND, TRANSMITTER, BIG BUTTON, MBR3346Z
152-00335	WEDGE, YOKE SPACER/POSITIONER
192-00887	LENS, INFRARED
194-02535-01	PAD, PUSHBUTTONS
206-03480	INSTR BOOK, OPERATION GUIDE
206-03554	INSTR BOOK, OPERATION GUIDE
A-07690-06	MAGNET ASSEMBLY, STATIC CONVERGENCE AND PURITY
F-50825	KEYBOARD ASSY, WITH IR RECEIVER, AGUA CHASSIS
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-02	GND STRAP ASSY, CRT

### B25A74R

Part #	Description
002-04084-11	CABINET BACK, PRESSED WOOD
012-10810-01	MOLDED PLASTIC, PANEL, JACK PACK, GA CHASSIS
014-12191-03	CABINET MAIN, TV, WOOD
020-04330-35	COIL, DEGAUSSER
030-01455-14	DECORATIVE ITEM, CABINET HARDWARE
046-10555	KNOB ARRAY, PUSH-BUTTON, 10 POSITIONS, STR
049-01302-03	SPEAKER, OVAL, 3X5 INCH
057-09067-09	ESCUTCHEON, TV, MOLDED PLASTIC
095-04456-05	TRANSFORMER, DEFLECTION YOKE, 25V HIBI COMERCIAL
A63AFW38X	VACUUM TUBE, CRT, COLOR, 25 INCH DIAGONAL
124-00233	SPACE COMMAND, TRANSMITTER, MBR3447Z
152-00335	WEDGE, YOKE SPACER/POSITIONER
192-00876	CRYSTAL WINDOW, IR
194-02535	PAD, PUSHBUTTONS
206-03450	INSTR BOOK, OPERATION GUIDE
A-07690-06	MAGNET ASSEMBLY, STATIC CONVERGENCE AND PURITY
F-50961	KEYBOARD ASSY, WITH IR, AGUA CHASSIS
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-02	GND STRAP ASSY, CRT

## MODEL PARTS (Continued)

### B25A74LK

Part #	Description
002-04084-11	CABINET, BACK, PRESSED WOOD
012-10810-01	MOLDED PLASTIC, PANEL, JACK PACK, GA CHASSIS
014-12191-05	CABINET, MAIN
020-04330-35	COIL, DEGAUSSER
030-01455-14	DECORATIVE ITEM, CABINET HARDWARE
046-10555	KNOB ARRAY, PUSH-BUTTON, 10 POSITIONS, STR
049-01302-03	SPEAKER, OVAL, 3X5 INCH
057-09067-09	ESCUTCHEON, TV, MOLDED PLASTIC
095-04456-05	TRANSFORMER, DEFLECTION YOKE, 25V HIBI COMERCIAL
A63AFW38X	VACUUM TUBE, CRT, COLOR, 25 INCH DIAGONAL
124-00233	SPACE COMMAND, TRANSMITTER, MBR3447Z
152-00335	WEDGE, YOKE SPACER/POSITIONER
192-00876	CRYSTAL WINDOW, IR
194-02535	PAD, PUSHBUTTONS
206-03450	INSTR BOOK, OPERATION GUIDE
A-07690-06	MAGNET ASSEMBLY, STATIC CONVERGENCE AND PURITY
F-50961	KEYBOARD ASSY, WITH IR, AGUA CHASSIS
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-02	GND STRAP ASSY, CRT

### B25A76R5

002-04103-01	CABINET BACK/ /
014-11639-19	CABINET REAR/ TV, MOLDED PLASTIC/
014-12333	CABINET MAIN/ TV, WOOD/
020-04330-35	COIL/ DEGAUSSER/
040-00567	HINGE/ /
049-01302-03	SPEAKER/ OVAL/ 3X5 INCH
057-09067-08	ESCUTCHEON/ TV, MOLDED PLASTIC/
100-00812-05	VACUUM TUBE/ CRT, COLOR, 25 INCH DIAGONAL/
110-00687-59	GRILLE CLOTH/ RECTANGULAR/
152-00335	WEDGE/ YOKE SPACER/POSITIONER/
192-00876	CRYSTAL WINDOW / IR/
192-00892	GLASS DOOR/ /
206-03450	INSTR BOOK/ OPERATION GUIDE/
A-07690-06	MAGNET ASSEMBLY/ STATIC CONVERGENCE AND PURITY/

### CB25A25Z, CB25A25Z6

Part #	Description
012-10858-04	MOLDED PLASTIC, PANEL, JACK PACK, CA CHASSIS
014-12038-02	CABINET TRAY, TV, MOLDED PLASTIC
014-12229-17	CABINET FRONT, TV, MOLDED PLASTIC
014-12230-03	CABINET REAR, TV, MOLDED PLASTIC
020-04330-42	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
046-10561	KNOB ARRAY, PUSH BUTTON, 10 POSITIONS
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
095-04456-06	TRANSFORMER, DEFLECTION YOKE, 25V HIBI COMERCIAL
A63AFW38X	VACUUM TUBE, CRT, COLOR, 25 INCH DIAGONAL
124-00233	SPACE COMMAND, TRANSMITTER, MBR3447Z
152-00335	WEDGE, YOKE SPACER/POSITIONER
192-00887	LENS, INFRARED
194-02535-01	PAD, PUSHBUTTONS
206-03479	INSTR BOOK, OPERATION GUIDE

A-07690-06	MAGNET ASSEMBLY, STATIC CONVERGENCE AND PURITY
F-50825	KEYBOARD ASSY, WITH IR RECEIVER, AGUA CHASSIS
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-02	GND STRAP ASSY, CRT

### LGB26A11ZM, LGB26A11ZM6

Part #	Description
014-12296-17	CABINET FRONT, TV, MOLDED PLASTIC
014-12297-09	CABINET REAR, TV, MOLDED PLASTIC
020-04330-42	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
046-10578	KNOB ARRAY, PUSH BUTTON, 6 POSITION
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
095-04456-06	TRANSFORMER, DEFLECTION YOKE, 25V HIBI COMERCIAL
A63AFW38X	VACUUM TUBE, CRT, COLOR, 25 INCH DIAGONAL
124-00233	SPACE COMMAND, TRANSMITTER, MBR3447Z
152-00335	WEDGE, YOKE SPACER/POSITIONER
192-00916	LENS, IR
206-03494	INSTR BOOK, OPERATION GUIDE
A-07690-06	MAGNET ASSEMBLY, STATIC CONVERGENCE AND PURITY
A-14323	BALUN ASSEMBLY,
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-02	GND STRAP ASSY, CRT

### B27A10Z, B27A10Z6, B27A10ZC, B27A10ZC6

Part #	Description
014-12304-03	CABINET REAR, TV, MOLDED PLASTIC
014-12305-08	CABINET FRONT, TV, MOLDED PLASTIC
020-04330-43	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
046-10578	KNOB ARRAY, PUSH BUTTON, 6 POSITION
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
124-00213-23	SPACE COMMAND, TRANSMITTER, TV ONLY SC3492Z
192-00916	LENS, IR
206-03476	INSTR BOOK, OPERATION GUIDE
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-02	GND STRAP ASSY, CRT
A-19058-03	CRT AND YOKE, ASSEMBLY, 27V

### B27A10Z5, B27A10ZC5

Part #	Description
014-12304-03	CABINET REAR, TV, MOLDED PLASTIC
014-12305-08	CABINET FRONT, TV, MOLDED PLASTIC
020-04330-43	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
046-10578	KNOB ARRAY, PUSH BUTTON, 6 POSITION
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
124-00213-23	SPACE COMMAND TRANSMITTER, TV ONLY SC3492Z
192-00916	LENS, IR
206-03476	INSTR BOOK, OPERATION GUIDE
A-18681-01	LINE CORD ASSY WITH YEONHO CONNECTOR
A-18695-02	GND STRAP ASSY, CRT
A-19058-01	CRT AND YOKE, ASSEMBLY

# MODEL PARTS (Continued)

## B27A10ZCF

Part #	Description
014-12304-03	CABINET REAR, TV, MOLDED PLASTIC
014-12305-08	CABINET FRONT, TV, MOLDED PLASTIC
020-04330-43	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
046-10578	KNOB ARRAY, PUSH BUTTON, 6 POSITION
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
124-00213-23	SPACE COMMAND, TRANSMITTER, TV ONLY SC3492Z
192-00916	LENS, IR
206-03476	INSTR BOOK, OPERATION GUIDE
206-03557	INSTR BOOK, OPERATION GUIDE
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-02	GND STRAP ASSY, CRT
A-19058-03	CRT AND YOKE, ASSEMBLY, 27V

## B27A11Z, B27A11Z6, B27A11ZC

Part #	Description
012-10858-03	MOLDED PLASTIC, PANEL, JACK PACK, CA CHASSIS
014-12281-08	CABINET FRONT, TV, MOLDED PLASTIC
014-12282-06	CABINET REAR, TV, MOLDED PLASTIC
020-04330-43	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
046-10588	KNOB ARRAY, PUSH BUTTON, 6 POSITION
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
124-00233	SPACE COMMAND, TRANSMITTER, MBR3447Z
192-00912	LENS, PRIMARY CONTROLS AND IR
194-02663	PAD, PUSHBUTTONS
206-03477	INSTR BOOK, OPERATION GUIDE
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-02	GND STRAP ASSY, CRT
F-52954	KEYBOARD ASSY, 6 BUTTON, 27V GA CHASSIS
A-19058-03	CRT AND YOKE, ASSEMBLY, 27V

## B27A11Z5, B27A11Z65, B27A11ZC5

Part #	Description
012-10858-03	MOLDED PLASTIC, PANEL, JACK PACK, CA CHASSIS
014-12281-08	CABINET FRONT, TV, MOLDED PLASTIC
014-12282-06	CABINET REAR, TV, MOLDED PLASTIC
020-04330-43	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
046-10588	KNOB ARRAY, PUSH BUTTON, 6 POSITION
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
124-00233	SPACE COMMAND, TRANSMITTER, MBR3447Z
192-00912	LENS, PRIMARY CONTROLS AND IR
194-02663	PAD, PUSHBUTTONS
206-03477	INSTR BOOK, OPERATION GUIDE
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-02	GND STRAP ASSY, CRT
F-52954	KEYBOARD ASSY, 6 BUTTON, 27V GA CHASSIS
A-19058-01	CRT AND YOKE, ASSEMBLY

## B27A24Z, B27A24Z6

Part #	Description
012-10858-04	MOLDED PLASTIC, PANEL, JACK PACK, CA CHASSIS
014-12254-06	CABINET REAR, TV, MOLDED PLASTIC
014-12317-04	CABINET FRONT, TV, MOLDED PLASTIC

020-04330-43	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
046-10589	KNOB ARRAY, PUSH-BUTTON, 6 POSITIONS
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
124-00233	SPACE COMMAND, TRANSMITTER, MBR3447Z
138-01964-02	CABINET GRILLE, CLOTH OVER PLASTIC FRAME, LEFT SIDE
138-01964-03	CABINET GRILLE, CLOTH OVER PLASTIC FRAME, RIGHT SIDE
192-00923	LENS, IR
194-02665	PAD, PUSHBUTTONS
206-03479	INSTR BOOK, OPERATION GUIDE
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-02	GND STRAP ASSY, CRT
F-53039	KEYBOARD ASSY, 6 BUTTON, 27V GB CHASSIS
A-19058-03	CRT AND YOKE, ASSEMBLY, 27V

## B27A24Z5, B27A24Z65

Part #	Description
012-10858-04	MOLDED PLASTIC, PANEL, JACK PACK, CA CHASSIS
014-12254-06	CABINET REAR, TV, MOLDED PLASTIC
014-12317-04	CABINET FRONT, TV, MOLDED PLASTIC
020-04330-43	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
046-10589	KNOB ARRAY, PUSH-BUTTON, 6 POSITIONS
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
124-00233	SPACE COMMAND, TRANSMITTER, MBR3447Z
138-01964-02	CABINET GRILLE, CLOTH OVER PLASTIC FRAME, LEFT SIDE
138-01964-03	CABINET GRILLE, CLOTH OVER PLASTIC FRAME, RIGHT SIDE
192-00923	LENS, IR
194-02665	PAD, PUSHBUTTONS
206-03479	INSTR BOOK, OPERATION GUIDE
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-02	GND STRAP ASSY, CRT
F-53039	KEYBOARD ASSY, 6 BUTTON, 27V GB CHASSIS
A-19058-01	CRT AND YOKE, ASSEMBLY

## B27A24ZF

Part #	Description
012-10858-04	MOLDED PLASTIC, PANEL, JACK PACK, CA CHASSIS
014-12254-06	CABINET REAR, TV, MOLDED PLASTIC
014-12317-04	CABINET FRONT, TV, MOLDED PLASTIC
020-04330-43	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
046-10589	KNOB ARRAY, PUSH-BUTTON, 6 POSITIONS
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
124-00233	SPACE COMMAND, TRANSMITTER, MBR3447Z
138-01964-02	CABINET GRILLE, CLOTH OVER PLASTIC FRAME, LEFT SIDE
138-01964-03	CABINET GRILLE, CLOTH OVER PLASTIC FRAME, RIGHT SIDE
192-00923	LENS, IR
194-02665	PAD, PUSHBUTTONS
206-03479	INSTR BOOK, OPERATION GUIDE
206-03555	INSTR BOOK, OPERATION GUIDE
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-02	GND STRAP ASSY, CRT



## MODEL PARTS (Continued)

F-53039 KEYBOARD ASSY, 6 BUTTON, 27V GB CHASSIS  
 A-19058-03 CRT AND YOKE, ASSEMBLY, 27V

### B27A24ZF5

Part #	Description
012-10858-04	MOLDED PLASTIC, PANEL, JACK PACK, CA CHASSIS
014-12254-06	CABINET REAR, TV, MOLDED PLASTIC
014-12317-04	CABINET FRONT, TV, MOLDED PLASTIC
020-04330-43	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
046-10589	KNOB ARRAY, PUSH-BUTTON, 6 POSITIONS
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
124-00233	SPACE COMMAND, TRANSMITTER, MBR3447Z
138-01964-02	CABINET GRILLE, CLOTH OVER PLASTIC FRAME, LEFT SIDE
138-01964-03	CABINET GRILLE, CLOTH OVER PLASTIC FRAME, RIGHT SIDE
192-00923	LENS, IR
194-02665	PAD, PUSHBUTTONS
206-03479	INSTR BOOK, OPERATION GUIDE
206-03555	INSTR BOOK, OPERATION GUIDE
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-02	GND STRAP ASSY, CRT
F-53039	KEYBOARD ASSY, 6 BUTTON, 27V GB CHASSIS
A-19058-01	CRT AND YOKE, ASSEMBLY

### B27A30Z, B27A30ZC, B27A30ZC6

Part #	Description
012-10858-03	MOLDED PLASTIC, PANEL, JACK PACK, CA CHASSIS
014-12281-08	CABINET FRONT, TV, MOLDED PLASTIC
014-12282-06	CABINET REAR, TV, MOLDED PLASTIC
020-04330-43	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
046-10588	KNOB ARRAY, PUSH BUTTON, 6 POSITION
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
124-00229-01	SPACE COMMAND, TRANSMITTER, BIG BUTTON, MBR3346Z
192-00912	LENS, PRIMARY CONTROLS AND IR
194-02663	PAD, PUSHBUTTONS
206-03480	INSTR BOOK, OPERATION GUIDE
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-02	GND STRAP ASSY, CRT
F-52954	KEYBOARD ASSY, 6 BUTTON, 27V GA CHASSIS
A-19058-03	CRT AND YOKE, ASSEMBLY, 27V

### B27A30ZC5, B27A30ZC65

Part #	Description
012-10858-03	MOLDED PLASTIC, PANEL, JACK PACK, CA CHASSIS
014-12281-08	CABINET FRONT, TV, MOLDED PLASTIC
014-12282-06	CABINET REAR, TV, MOLDED PLASTIC
020-04330-43	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
046-10588	KNOB ARRAY, PUSH BUTTON, 6 POSITION
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
124-00229-01	SPACE COMMAND, TRANSMITTER, BIG BUTTON, MBR3346Z
192-00912	LENS, PRIMARY CONTROLS AND IR
194-02663	PAD, PUSHBUTTONS
206-03480	INSTR BOOK, OPERATION GUIDE

A-18681-01 LINE CORD ASSY, WITH YEONHO CONNECTOR  
 A-18695-02 GND STRAP ASSY, CRT  
 F-52954 KEYBOARD ASSY, 6 BUTTON, 27V GA CHASSIS  
 A-19058-01 CRT AND YOKE, ASSEMBLY

### B27A30ZCF

Part #	Description
012-10858-03	MOLDED PLASTIC, PANEL, JACK PACK, CA CHASSIS
014-12281-08	CABINET FRONT, TV, MOLDED PLASTIC
014-12282-06	CABINET REAR, TV, MOLDED PLASTIC
020-04330-43	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
046-10588	KNOB ARRAY, PUSH BUTTON, 6 POSITION
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
124-00229-01	SPACE COMMAND, TRANSMITTER, BIG BUTTON, MBR3346Z
192-00912	LENS, PRIMARY CONTROLS AND IR
194-02663	PAD, PUSHBUTTONS
206-03480	INSTR BOOK, OPERATION GUIDE
206-03554	INSTR BOOK, OPERATION GUIDE
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-02	GND STRAP ASSY, CRT
F-52954	KEYBOARD ASSY, 6 BUTTON, 27V GA CHASSIS
A-19058-03	CRT AND YOKE, ASSEMBLY, 27V

### B27A30ZCF5

Part #	Description
012-10858-03	MOLDED PLASTIC, PANEL, JACK PACK, CA CHASSIS
014-12281-08	CABINET FRONT, TV, MOLDED PLASTIC
014-12282-06	CABINET REAR, TV, MOLDED PLASTIC
020-04330-43	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
046-10588	KNOB ARRAY, PUSH BUTTON, 6 POSITION
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
124-00229-01	SPACE COMMAND, TRANSMITTER, BIG BUTTON, MBR3346Z
192-00912	LENS, PRIMARY CONTROLS AND IR
194-02663	PAD, PUSHBUTTONS
206-03480	INSTR BOOK, OPERATION GUIDE
206-03554	INSTR BOOK, OPERATION GUIDE
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-02	GND STRAP ASSY, CRT
F-52954	KEYBOARD ASSY, 6 BUTTON, 27V GA CHASSIS
A-19058-01	CRT AND YOKE, ASSEMBLY

### B27A34Z, B27A34Z6

Part #	Description
012-10858-04	MOLDED PLASTIC, PANEL, JACK PACK, CA CHASSIS
014-12254-06	CABINET REAR, TV, MOLDED PLASTIC
014-12347	CABINET FRONT, TV, MOLDED PLASTIC
020-04330-43	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
046-10589	KNOB ARRAY, PUSH-BUTTON, 6 POSITIONS
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
124-00233-01	SPACE COMMAND, TRANSMITTER, MBR3457Z
138-01965	CABINET GRILLE, CLOTH OVER PLASTIC FRAME, LEFT SIDE
138-01965-01	CABINET GRILLE, CLOTH OVER PLASTIC FRAME, LEFT SIDE

## MODEL PARTS (Continued)

192-00923	LENS, IR
194-02665	PAD, PUSHBUTTONS
206-03481	INSTR BOOK, OPERATION GUIDE
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-21	GND STRAP ASSY, CRT
F-53039	KEYBOARD ASSY, 6 BUTTON, 27V GB CHASSIS
A-19112	CRT ASSEMBLY, WDEFLECTION YOKE AND BEAM BENDER, 27V 1.7R

### B27A34ZF

Part #	Description
012-10858-04	MOLDED PLASTIC, PANEL, JACK PACK, CA CHASSIS
014-12254-06	CABINET REAR, TV, MOLDED PLASTIC
014-12347	CABINET FRONT, TV, MOLDED PLASTIC
020-04330-43	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
046-10589	KNOB ARRAY, PUSH-BUTTON, 6 POSITIONS
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
124-00233-01	SPACE COMMAND, TRANSMITTER, MBR3457Z
138-01965	CABINET GRILLE, CLOTH OVER PLASTIC FRAME, LEFT SIDE
138-01965-01	CABINET GRILLE, CLOTH OVER PLASTIC FRAME, LEFT SIDE
192-00923	LENS, IR
194-02665	PAD, PUSHBUTTONS
206-03481	INSTR BOOK, OPERATION GUIDE
206-03553	INSTR BOOK, OPERATION GUIDE
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-21	GND STRAP ASSY, CRT
F-53039	KEYBOARD ASSY, 6 BUTTON, 27V GB CHASSIS
A-19112	CRT ASSEMBLY, WDEFLECTION YOKE AND BEAM BENDER, 27V 1.7R

### B27A74R

Part #	Description
002-04084-13	CABINET BACK, PRESSED WOOD
012-10810-01	MOLDED PLASTIC, PANEL, JACK PACK, GA CHASSIS
014-12326	CABINET MAIN, TV, WOOD
020-04330-30	COIL, DEGAUSSER
030-01455-09	DECORATIVE ITEM, CABINET HARDWARE
046-10555	KNOB ARRAY, PUSH-BUTTON, 10 POSITIONS, STR
049-01334-02	SPEAKER, OVAL, 3X6.500
057-09055-43	ESCUTCHEON, CRT
124-00233	SPACE COMMAND, TRANSMITTER, MBR3447Z
192-00872	CRYSTAL WINDOW, IR, STEREO, AND COLOR SENTRY
194-02535	PAD, PUSHBUTTONS
197-00180-01	CUP, CABINET BACK
206-03372	INSTR BOOK, OPERATION GUIDE
F-50961	KEYBOARD ASSY, WITH IR, AGUA CHASSIS
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-02	GND STRAP ASSY, CRT
A-19058-03	CRT AND YOKE ASSEMBLY

### B27A74R5

Part #	Description
002-04084-13	CABINET BACK, PRESSED WOOD
012-10810-01	MOLDED PLASTIC, PANEL, JACK PACK, GA CHASSIS
014-12326	CABINET MAIN, TV, WOOD

020-04330-30	COIL, DEGAUSSER
030-01455-09	DECORATIVE ITEM, CABINET HARDWARE
046-10555	KNOB ARRAY, PUSH-BUTTON, 10 POSITIONS, STR
049-01334-02	SPEAKER, OVAL, 3X6.500
057-09055-43	ESCUTCHEON, CRT
124-00233	SPACE COMMAND, TRANSMITTER, MBR3447Z
192-00872	CRYSTAL WINDOW, IR, STEREO, AND COLOR SENTRY
194-02535	PAD, PUSHBUTTONS
197-00180-01	CUP, CABINET BACK
206-03372	INSTR BOOK, OPERATION GUIDE
F-50961	KEYBOARD ASSY, WITH IR, AGUA CHASSIS
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-02	GND STRAP ASSY, CRT
A-19058-01	CRT AND YOKE ASSEMBLY

### B27A76R

Part #	Description
002-04103-02	CABINET BACK,
014-11639-20	CABINET REAR, TV, MOLDED PLASTIC
014-12327	CABINET MAIN, TV, WOOD
020-04330-30	COIL, DEGAUSSER
040-00567	HINGE,
046-10555	KNOB ARRAY, PUSH-BUTTON, 10 POSITIONS, STR
049-01334-02	SPEAKER, OVAL, 3X6.500
057-09055-42	ESCUTCHEON, CRT
110-00687-59	GRILLE CLOTH, RECTANGULAR
124-00233	SPACE COMMAND, TRANSMITTER, MBR3447Z
192-00872	CRYSTAL WINDOW, IR, STEREO, AND COLOR SENTRY
192-00892	GLASS DOOR,
194-02535	PAD, PUSHBUTTONS
206-03372	INSTR BOOK, OPERATION GUIDE
F-50961	KEYBOARD ASSY, WITH IR, AGUA CHASSIS
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-02	GND STRAP ASSY, CRT
A-19058-03	CRT AND YOKE ASSEMBLY

### B27A76R5

Part #	Description
002-04103-02	CABINET BACK,
014-11639-20	CABINET REAR, TV, MOLDED PLASTIC
014-12327	CABINET MAIN, TV, WOOD
020-04330-30	COIL, DEGAUSSER
040-00567	HINGE,
046-10555	KNOB ARRAY, PUSH-BUTTON, 10 POSITIONS, STR
049-01334-02	SPEAKER, OVAL, 3X6.500
057-09055-42	ESCUTCHEON, CRT
110-00687-59	GRILLE CLOTH, RECTANGULAR
124-00233	SPACE COMMAND, TRANSMITTER, MBR3447Z
192-00872	CRYSTAL WINDOW, IR, STEREO, AND COLOR SENTRY
192-00892	GLASS DOOR,
194-02535	PAD, PUSHBUTTONS
206-03372	INSTR BOOK, OPERATION GUIDE
F-50961	KEYBOARD ASSY, WITH IR, AGUA CHASSIS
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-02	GND STRAP ASSY, CRT
A-19058-01	CRT AND YOKE ASSEMBLY

## MODEL PARTS (Continued)

### LGB29A10ZM

Part #	Description
014-12304-03	CABINET REAR, TV, MOLDED PLASTIC
014-12305-08	CABINET FRONT, TV, MOLDED PLASTIC
020-04330-43	COIL, DEGAUSSER
030-01526-03	DECORATIVE ITEM, LOGO, ZENITH
046-10578	KNOB ARRAY, PUSH BUTTON, 6 POSITION
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
124-00213-23	SPACE COMMAND, TRANSMITTER, TV ONLY SC3492Z
192-00916	LENS, IR
206-03495	INSTR BOOK, OPERATION GUIDE
A-14323	BALUN ASSEMBLY,
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-02	GND STRAP ASSY, CRT
A-19058-03	CRT AND YOKE, ASSEMBLY, 27V

### LGB29A10ZM5

Part#	Description
014-12304-03	CABINET REAR, TV, MOLDED PLASTIC
014-12305-08	CABINET FRONT, TV, MOLDED PLASTIC
020-04330-43	COIL, DEGAUSSER
030-01526-03	DECORATIVE ITEM, LOGO, ZENITH
046-10578	KNOB ARRAY, PUSH BUTTON, 6 POSITION
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
124-00213-23	SPACE COMMAND TRANSMITTER, TV ONLY, SC3492Z
192-00916	LENS, IR
206-03495	INSTR BOOK, OPERATION GUIDE
A-14323	BALUN ASSEMBLY
A-18681-01	LINE CORD ASSY WITH YEONHO CONNECTOR
A-18695-02	GND STRAP ASSY, CRT
A-19058-01	CRT AND YOKE, ASSEMBLY

### LGB29A11ZM

Part #	Description
012-10858-03	MOLDED PLASTIC, PANEL, JACK PACK, CA CHASSIS
014-12281-08	CABINET FRONT, TV, MOLDED PLASTIC
014-12282-06	CABINET REAR, TV, MOLDED PLASTIC
020-04330-43	COIL, DEGAUSSER
030-01526-03	DECORATIVE ITEM, LOGO, ZENITH
046-10588	KNOB ARRAY, PUSH BUTTON, 6 POSITION
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
124-00233	SPACE COMMAND, TRANSMITTER, MBR3447Z
192-00912	LENS, PRIMARY CONTROLS AND IR
194-02663	PAD, PUSHBUTTONS
206-03494	INSTR BOOK, OPERATION GUIDE
A-14323	BALUN ASSEMBLY,
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-02	GND STRAP ASSY, CRT
F-52954	KEYBOARD ASSY, 6 BUTTON, 27V GA CHASSIS
A-19058-03	CRT AND YOKE, ASSEMBLY, 27V

### LGB29A11ZM5

Part#	Description
012-10858-03	MOLDED PLASTIC PANEL, JACK PACK
014-12281-08	CABINET FRONT, TV, MOLDED PLASTIC
014-12282-06	CABINET REAR, TV, MOLDED PLASTIC
020-04330-43	COIL, DEGAUSSER
030-01526-03	DECORATIVE ITEM, LOGO, ZENITH

049-01368-03	SPEAKER, OVAL, 6 X 13 CM
124-00233	SPACE COMMAND TRANSMITTER, MBR3447Z
192-00912	LENS, PRIMARY CONTROLS AND IR
206-03494	INSTR BOOK, OPERATION GUIDE
A-14323	BALUN ASSEMBLY
A-18681-01	LINE CORD ASSY WITH YEONHO CONNECTOR
A-18695-02	GND STRAP ASSY, CRT
A-19058-01	CRT AND YOKE ASSEMBLY
F-52954	KEYBOARD ASSY, 6 KEY

### LGB29A13ZM

Part #	Description
014-12304-03	CABINET REAR, TV, MOLDED PLASTIC
014-12305-08	CABINET FRONT, TV, MOLDED PLASTIC
020-04330-30	COIL, DEGAUSSER
030-01526-03	DECORATIVE ITEM, LOGO, ZENITH
046-10578	KNOB ARRAY, PUSH BUTTON, 6 POSITION
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
124-00229	SPACE COMMAND, TRANSMITTER, BIG BUTTON, MBR3345Z
192-00916	LENS, IR
206-03498	INSTR BOOK, OPERATION GUIDE
A-14323	BALUN ASSEMBLY,
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-02	GND STRAP ASSY, CRT
A-19058-01	CRT AND YOKE, ASSEMBLY

### LGB29A24ZM

Part #	Description
012-10858-04	MOLDED PLASTIC, PANEL, JACK PACK, CA CHASSIS
014-12254-06	CABINET REAR, TV, MOLDED PLASTIC
014-12317-04	CABINET FRONT, TV, MOLDED PLASTIC
020-04330-43	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
046-10589	KNOB ARRAY, PUSH-BUTTON, 6 POSITIONS
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
124-00233	SPACE COMMAND, TRANSMITTER, MBR3447Z
138-01964-02	CABINET GRILLE, CLOTH OVER PLASTIC FRAME, LEFT SIDE
138-01964-03	CABINET GRILLE, CLOTH OVER PLASTIC FRAME, RIGHT SIDE
192-00923	LENS, IR
194-02665	PAD, PUSHBUTTONS
206-03497	INSTR BOOK, OPERATION GUIDE
A-14323	BALUN ASSEMBLY,
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-02	GND STRAP ASSY, CRT
F-53039	KEYBOARD ASSY, 6 BUTTON, 27V GB CHASSIS
A-19058-03	CRT AND YOKE, ASSEMBLY, 27V

### LGB29A24ZM5

Part #	Description
012-10858-04	MOLDED PLASTIC PANEL, JACK PACK
014-12254-06	CABINET REAR, TV, MOLDED PLASTIC
014-12317-04	CABINET FRONT, TV, MOLDED PLASTIC
020-04330-43	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
124-00233	SPACE COMMAND TRANSMITTER, MBR3447Z

## MODEL PARTS (Continued)

138-01964-02	CABINET GRILLE, CLOTH OVER PLASTIC, LEFT
138-01964-03	CABINET GRILLE, CLOTH OVER PLASTIC, RIGHT
192-00923	LENS, IR
206-03497	INSTR BOOK, OPERATION GUIDE
A-14323	BALUN ASSEMBLY
A-18681-01	LINE CORD ASSY WITH YEONHO CONNECTOR
A-18695-02	GND STRAP ASSY, CRT
A-19058-01	CRT AND YOKE, ASSEMBLY
F-53039	KEYBOARD ASSY, 6 POSITION

### LGB29A30ZM

Part #	Description
012-10858-03	MOLDED PLASTIC, PANEL, JACK PACK, CA CHASSIS
014-12281-08	CABINET FRONT, TV, MOLDED PLASTIC
014-12282-06	CABINET REAR, TV, MOLDED PLASTIC
020-04330-43	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
046-10588	KNOB ARRAY, PUSH BUTTON, 6 POSITION
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
124-00229-01	SPACE COMMAND, TRANSMITTER, BIG BUTTON, MBR3346Z
192-00912	LENS, PRIMARY CONTROLS AND IR
194-02663	PAD, PUSHBUTTONS
206-03496	INSTR BOOK, OPERATION GUIDE
A-14323	BALUN ASSEMBLY,
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-02	GND STRAP ASSY, CRT
F-52954	KEYBOARD ASSY, 6 BUTTON, 27V GA CHASSIS
A-19058-03	CRT AND YOKE, ASSEMBLY, 27V

### LGB29A30ZM5

Part #	Description
012-10858-03	MOLDED PLASTIC PANEL, JACK PACK
014-12281-08	CABINET FRONT, TV, MOLDED PLASTIC
014-12282-06	CABINET REAR, TV, MOLDED PLASTIC
020-04330-43	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
124-00229-01	SPACE COMMAND TRANSMITTER, BIG BUTTON, MBR3346Z
192-00912	LENS, PRIMARY CONTROLS AND IR
206-03496	INSTR BOOK, OPERATION GUIDE
A-14323	BALUN ASSEMBLY
A-18681-01	LINE CORD ASSY WITH YEONHO CONNECTOR
A-18695-02	GND STRAP ASSY, CRT
A-19058-01	CRT AND YOKE ASSEMBLY
F-52954	KEYBOARD ASSY, 6 KEY

### B32A24Z

Part #	Description
009-02068	MODULE, MAIN, 32V MTSSAP CA CHASSIS, V-CHIP, COMB FILTER
012-10858-04	MOLDED PLASTIC, PANEL, JACK PACK, CA CHASSIS
014-12284-23	CABINET FRONT, TV, MOLDED PLASTIC
014-12285-08	CABINET REAR, TV, MOLDED PLASTIC
020-04330-33	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
095-04517-01	DEFLECTION YOKE, FINAL, COLOR TV, 32V
A81AGZ50X	VACUUM TUBE, CRT,COLOR, 32 INCH DIAGONAL

124-00233	SPACE COMMAND, TRANSMITTER, MBR3447Z
152-00335	WEDGE, YOKE SPACER/POSITIONER
152-00335-01	WEDGE, CRT SPACER
192-00912	LENS, PRIMARY CONTROLS AND IR
206-03479	INSTR BOOK, OPERATION GUIDE
A-15947-01	BEAM BENDER, ASSEMBLY
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-03	GND STRAP ASSY, CRT
F-52060	KEYBOARD ASSY, 10 POSITION

### B32A24Z6

Part #	Description
009-02068-01	MODULE, MAIN, 32V MTSSAP CA CHASSIS, V-CHIP, COMB FILTER
012-10858-04	MOLDED PLASTIC, PANEL, JACK PACK, CA CHASSIS
014-12284-23	CABINET FRONT, TV, MOLDED PLASTIC
014-12285-08	CABINET REAR, TV, MOLDED PLASTIC
020-04330-33	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
095-04517-01	DEFLECTION YOKE, FINAL, COLOR TV, 32V
A81AGZ50X	VACUUM TUBE, CRT,COLOR, 32 INCH DIAGONAL
124-00233	SPACE COMMAND, TRANSMITTER, MBR3447Z
152-00335	WEDGE, YOKE SPACER/POSITIONER
152-00335-01	WEDGE, CRT SPACER
192-00912	LENS, PRIMARY CONTROLS AND IR
206-03479	INSTR BOOK, OPERATION GUIDE
A-15947-01	BEAM BENDER, ASSEMBLY
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-03	GND STRAP ASSY, CRT
F-52060	KEYBOARD ASSY, 10 POSITION

### B32A24ZF

Part #	Description
009-02068	MODULE, MAIN, 32V MTSSAP CA CHASSIS, V-CHIP, COMB FILTER
012-10858-04	MOLDED PLASTIC, PANEL, JACK PACK, CA CHASSIS
014-12284-23	CABINET FRONT, TV, MOLDED PLASTIC
014-12285-08	CABINET REAR, TV, MOLDED PLASTIC
020-04330-33	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
095-04517-01	DEFLECTION YOKE, FINAL, COLOR TV, 32V
A81AGZ50X	VACUUM TUBE, CRT,COLOR, 32 INCH DIAGONAL
124-00233	SPACE COMMAND, TRANSMITTER, MBR3447Z
152-00335	WEDGE, YOKE SPACER/POSITIONER
152-00335-01	WEDGE, CRT SPACER
192-00912	LENS, PRIMARY CONTROLS AND IR
206-03479	INSTR BOOK, OPERATION GUIDE
206-03555	INSTR BOOK, OPERATION GUIDE
A-15947-01	BEAM BENDER, ASSEMBLY
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-03	GND STRAP ASSY, CRT
F-52060	KEYBOARD ASSY, 10 POSITION

### B32A30Z

Part #	Description
009-02072	MODULE, MAIN, 32V STEREO CA CHASSIS, V-CHIP, PIP, 3 JACKS
009-02107	MODULE, SINGLE PIP, CA CHASSIS

## MODEL PARTS (Continued)

012-10858-03	MOLDED PLASTIC, PANEL, JACK PACK, CA CHASSIS
014-12284-23	CABINET FRONT, TV, MOLDED PLASTIC
014-12285-08	CABINET REAR, TV, MOLDED PLASTIC
020-04330-33	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
095-04208-01	TRANSFORMER, DEFLECTION YOKE, 110 DEGREE
A81AGZ50X	VACUUM TUBE, CRT,COLOR, 32 INCH DIAGONAL
124-00229-01	SPACE COMMAND, TRANSMITTER, BIG BUTTON, MBR3346Z
152-00335	WEDGE, YOKE SPACER/POSITIONER
152-00335-01	WEDGE, CRT SPACER
192-00912	LENS, PRIMARY CONTROLS AND IR
206-03480	INSTR BOOK, OPERATION GUIDE
A-15947-01	BEAM BENDER, ASSEMBLY
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-03	GND STRAP ASSY, CRT
F-52060	KEYBOARD ASSY, 10 POSITION

### B32A30Z6

Part #	Description
009-02072-01	MODULE, MAIN, 32V STEREO CA CHASSIS, V-CHIP, PIP, 3 JACKS
009-02107	MODULE, SINGLE PIP, CA CHASSIS
012-10858-03	MOLDED PLASTIC, PANEL, JACK PACK, CA CHASSIS
014-12284-23	CABINET FRONT, TV, MOLDED PLASTIC
014-12285-08	CABINET REAR, TV, MOLDED PLASTIC
020-04330-33	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
095-04208-01	TRANSFORMER, DEFLECTION YOKE, 110 DEGREE
A81AGZ50X	VACUUM TUBE, CRT,COLOR, 32 INCH DIAGONAL
124-00229-01	SPACE COMMAND, TRANSMITTER, BIG BUTTON, MBR3346Z
152-00335	WEDGE, YOKE SPACER/POSITIONER
152-00335-01	WEDGE, CRT SPACER
192-00912	LENS, PRIMARY CONTROLS AND IR
206-03480	INSTR BOOK, OPERATION GUIDE
A-15947-01	BEAM BENDER, ASSEMBLY
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-03	GND STRAP ASSY, CRT
F-52060	KEYBOARD ASSY, 10 POSITION

### B32A30ZF

Part #	Description
009-02072	MODULE, MAIN, 32V STEREO CA CHASSIS, V-CHIP, PIP, 3 JACKS
009-02107	MODULE, SINGLE PIP, CA CHASSIS
012-10858-03	MOLDED PLASTIC, PANEL, JACK PACK, CA CHASSIS
014-12284-23	CABINET FRONT, TV, MOLDED PLASTIC
014-12285-08	CABINET REAR, TV, MOLDED PLASTIC
020-04330-33	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
095-04208-01	TRANSFORMER, DEFLECTION YOKE, 110 DEGREE
A81AGZ50X	VACUUM TUBE, CRT,COLOR, 32 INCH DIAGONAL
124-00229-01	SPACE COMMAND, TRANSMITTER, BIG BUTTON, MBR3346Z
152-00335	WEDGE, YOKE SPACER/POSITIONER
152-00335-01	WEDGE, CRT SPACER

192-00912	LENS, PRIMARY CONTROLS AND IR
206-03480	INSTR BOOK, OPERATION GUIDE
206-03554	INSTR BOOK, OPERATION GUIDE
A-15947-01	BEAM BENDER, ASSEMBLY
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-03	GND STRAP ASSY, CRT
F-52060	KEYBOARD ASSY, 10 POSITION

### B32A34Z

Part #	Description
009-02075	MODULE, MAIN, 32V MTSSAP CA CHASSIS, V-CHIP,PIP,COMB FILT
009-02107	MODULE, SINGLE PIP, CA CHASSIS
012-10858-04	MOLDED PLASTIC, PANEL, JACK PACK, CA CHASSIS
014-12284-23	CABINET FRONT, TV, MOLDED PLASTIC
014-12285-08	CABINET REAR, TV, MOLDED PLASTIC
020-04330-33	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
095-04208-01	TRANSFORMER, DEFLECTION YOKE, 110 DEGREE
A81AGZ50X	VACUUM TUBE, CRT,COLOR, 32 INCH DIAGONAL
124-00233-01	SPACE COMMAND, TRANSMITTER, MBR3457Z
152-00335	WEDGE, YOKE SPACER/POSITIONER
152-00335-01	WEDGE, CRT SPACER
192-00912	LENS, PRIMARY CONTROLS AND IR
206-03481	INSTR BOOK, OPERATION GUIDE
A-15947-01	BEAM BENDER, ASSEMBLY
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-03	GND STRAP ASSY, CRT
F-52060	KEYBOARD ASSY, 10 POSITION

### B32A34Z6

Part #	Description
009-02075-01	MODULE, MAIN, 32V MTSSAP CA CHASSIS, V-CHIP,PIP,COMB FILT
009-02107	MODULE, SINGLE PIP, CA CHASSIS
012-10858-04	MOLDED PLASTIC, PANEL, JACK PACK, CA CHASSIS
014-12284-23	CABINET FRONT, TV, MOLDED PLASTIC
014-12285-08	CABINET REAR, TV, MOLDED PLASTIC
020-04330-33	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
095-04208-01	TRANSFORMER, DEFLECTION YOKE, 110 DEGREE
A81AGZ50X	VACUUM TUBE, CRT,COLOR, 32 INCH DIAGONAL
124-00233-01	SPACE COMMAND, TRANSMITTER, MBR3457Z
152-00335	WEDGE, YOKE SPACER/POSITIONER
152-00335-01	WEDGE, CRT SPACER
192-00912	LENS, PRIMARY CONTROLS AND IR
206-03481	INSTR BOOK, OPERATION GUIDE
A-15947-01	BEAM BENDER, ASSEMBLY
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-03	GND STRAP ASSY, CRT
F-52060	KEYBOARD ASSY, 10 POSITION

### B32A34ZF

Part #	Description
009-02075	MODULE, MAIN, 32V MTSSAP CA CHASSIS, V-CHIP,PIP,COMB FILT
009-02107	MODULE, SINGLE PIP, CA CHASSIS

## MODEL PARTS (Continued)

012-10858-04	MOLDED PLASTIC, PANEL, JACK PACK, CA CHASSIS
014-12284-23	CABINET FRONT, TV, MOLDED PLASTIC
014-12285-08	CABINET REAR, TV, MOLDED PLASTIC
020-04330-33	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
095-04208-01	TRANSFORMER, DEFLECTION YOKE, 110 DEGREE
A81AGZ50X	VACUUM TUBE, CRT,COLOR, 32 INCH DIAGONAL
124-00233-01	SPACE COMMAND, TRANSMITTER, MBR3457Z
152-00335	WEDGE, YOKE SPACER/POSITIONER
152-00335-01	WEDGE, CRT SPACER
192-00912	LENS, PRIMARY CONTROLS AND IR
206-03481	INSTR BOOK, OPERATION GUIDE
206-03553	INSTR BOOK, OPERATION GUIDE
A-15947-01	BEAM BENDER, ASSEMBLY
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-03	GND STRAP ASSY, CRT
F-52060	KEYBOARD ASSY, 10 POSITION

### B36A24Z

Part #	Description
009-02069	MODULE, MAIN, 36V MTSSAP CA CHASSIS, V-CHIP, COMB FILTER
012-10858-04	MOLDED PLASTIC, PANEL, JACK PACK, CA CHASSIS
014-12269-12	CABINET FRONT, TV, MOLDED PLASTIC, 35V-1R
014-12270-12	CABINET REAR, TV, MOLDED PLASTIC, 3536V
020-04330-34	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
124-00233	SPACE COMMAND, TRANSMITTER, MBR3447Z
192-00912	LENS, PRIMARY CONTROLS AND IR
206-03479	INSTR BOOK, OPERATION GUIDE
A-18639	CRT ASSEMBLY, WDEFLECTION YOKE AND BEAM BENDER, 36V CTV
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-04	GND STRAP ASSY, CRT
F-52060	KEYBOARD ASSY, 10 POSITION

### B36A24Z6

Part #	Description
009-02069-01	MODULE, MAIN, 36V MTSSAP CA CHASSIS, V-CHIP, COMB FILTER
012-10858-04	MOLDED PLASTIC, PANEL, JACK PACK, CA CHASSIS
014-12269-12	CABINET FRONT, TV, MOLDED PLASTIC, 35V-1R
014-12270-12	CABINET REAR, TV, MOLDED PLASTIC, 3536V
020-04330-34	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
124-00233	SPACE COMMAND, TRANSMITTER, MBR3447Z
192-00912	LENS, PRIMARY CONTROLS AND IR
206-03479	INSTR BOOK, OPERATION GUIDE
A-18639	CRT ASSEMBLY, WDEFLECTION YOKE AND BEAM BENDER, 36V CTV
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-04	GND STRAP ASSY, CRT
F-52060	KEYBOARD ASSY, 10 POSITION

### B36A24ZF

Part #	Description
009-02069	MODULE, MAIN, 36V MTSSAP CA CHASSIS, V-CHIP, COMB FILTER
012-10858-04	MOLDED PLASTIC, PANEL, JACK PACK, CA CHASSIS
014-12269-12	CABINET FRONT, TV, MOLDED PLASTIC, 35V-1R
014-12270-12	CABINET REAR, TV, MOLDED PLASTIC, 3536V
020-04330-34	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
124-00233	SPACE COMMAND, TRANSMITTER, MBR3447Z
192-00912	LENS, PRIMARY CONTROLS AND IR
206-03479	INSTR BOOK, OPERATION GUIDE
206-03553	INSTR BOOK, OPERATION GUIDE
A-18639	CRT ASSEMBLY, WDEFLECTION YOKE AND BEAM BENDER, 36V CTV
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-04	GND STRAP ASSY, CRT
F-52060	KEYBOARD ASSY, 10 POSITION

### B36A30Z

Part #	Description
009-02073	MODULE, MAIN, 36V STEREO CA CHASSIS, V-CHIP, PIP, 3 JACKS
009-02107	MODULE, SINGLE PIP, CA CHASSIS
012-10858-03	MOLDED PLASTIC, PANEL, JACK PACK, CA CHASSIS
014-12269-12	CABINET FRONT, TV, MOLDED PLASTIC, 35V-1R
014-12270-12	CABINET REAR, TV, MOLDED PLASTIC, 3536V
020-04330-34	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
124-00229-01	SPACE COMMAND, TRANSMITTER, BIG BUTTON, MBR3346Z
192-00912	LENS, PRIMARY CONTROLS AND IR
206-03480	INSTR BOOK, OPERATION GUIDE
A-18639	CRT ASSEMBLY, WDEFLECTION YOKE AND BEAM BENDER, 36V CTV
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-04	GND STRAP ASSY, CRT
F-52060	KEYBOARD ASSY, 10 POSITION

### B36A30Z6

Part #	Description
009-02073-01	MODULE, MAIN, 36V STEREO CA CHASSIS, V-CHIP, PIP, 3 JACKS
009-02107	MODULE, SINGLE PIP, CA CHASSIS
012-10858-03	MOLDED PLASTIC, PANEL, JACK PACK, CA CHASSIS
014-12269-12	CABINET FRONT, TV, MOLDED PLASTIC, 35V-1R
014-12270-12	CABINET REAR, TV, MOLDED PLASTIC, 3536V
020-04330-34	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
124-00229-01	SPACE COMMAND, TRANSMITTER, BIG BUTTON, MBR3346Z
192-00912	LENS, PRIMARY CONTROLS AND IR
206-03480	INSTR BOOK, OPERATION GUIDE

## MODEL PARTS (Continued)

A-18639 CRT ASSEMBLY, WDEFLECTION YOKE AND BEAM BENDER, 36V CTV  
 A-18681-01 LINE CORD ASSY, WITH YEONHO CONNECTOR  
 A-18695-04 GND STRAP ASSY, CRT  
 F-52060 KEYBOARD ASSY, 10 POSITION

### B36A30ZF

Part #	Description
009-02073	MODULE, MAIN, 36V STEREO CA CHASSIS, V-CHIP, PIP, 3 JACKS
009-02107	MODULE, SINGLE PIP, CA CHASSIS
012-10858-03	MOLDED PLASTIC, PANEL, JACK PACK, CA CHASSIS
014-12269-12	CABINET FRONT, TV, MOLDED PLASTIC, 35V-1R
014-12270-12	CABINET REAR, TV, MOLDED PLASTIC, 3536V
020-04330-34	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
124-00229-01	SPACE COMMAND, TRANSMITTER, BIG BUTTON, MBR3346Z
192-00912	LENS, PRIMARY CONTROLS AND IR
206-03480	INSTR BOOK, OPERATION GUIDE
206-03554	INSTR BOOK, OPERATION GUIDE
A-18639	CRT ASSEMBLY, WDEFLECTION YOKE AND BEAM BENDER, 36V CTV
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-04	GND STRAP ASSY, CRT
F-52060	KEYBOARD ASSY, 10 POSITION

### B36A34Z0

Part #	Description
009-02076	MODULE, MAIN, 36V MTSSAP CA CHASSIS, V-CHIP, PIP, COMB FILT
009-02107	MODULE, SINGLE PIP, CA CHASSIS
012-10858-04	MOLDED PLASTIC, PANEL, JACK PACK, CA CHASSIS
014-12269-12	CABINET FRONT, TV, MOLDED PLASTIC, 35V-1R
014-12270-12	CABINET REAR, TV, MOLDED PLASTIC, 3536V
020-04330-34	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
124-00233-01	SPACE COMMAND, TRANSMITTER, MBR3457Z
192-00912	LENS, PRIMARY CONTROLS AND IR
206-03481	INSTR BOOK, OPERATION GUIDE
A-18639	CRT ASSEMBLY, WDEFLECTION YOKE AND BEAM BENDER, 36V CTV
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-04	GND STRAP ASSY, CRT
F-52060	KEYBOARD ASSY, 10 POSITION

### B36A34Z6

Part #	Description
009-02076-01	MODULE, MAIN, 36V MTSSAP CA CHASSIS, V-CHIP, PIP, COMB FILT
009-02107	MODULE, SINGLE PIP, CA CHASSIS
012-10858-04	MOLDED PLASTIC, PANEL, JACK PACK, CA CHASSIS
014-12269-12	CABINET FRONT, TV, MOLDED PLASTIC, 35V-1R
014-12270-12	CABINET REAR, TV, MOLDED PLASTIC, 3536V
020-04330-34	COIL, DEGAUSSER

030-01532	DECORATIVE ITEM, LOGO, ZENITH
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
124-00233-01	SPACE COMMAND, TRANSMITTER, MBR3457Z
192-00912	LENS, PRIMARY CONTROLS AND IR
206-03481	INSTR BOOK, OPERATION GUIDE
A-18639	CRT ASSEMBLY, WDEFLECTION YOKE AND BEAM BENDER, 36V CTV
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-04	GND STRAP ASSY, CRT
F-52060	KEYBOARD ASSY, 10 POSITION

### B36A34ZF

Part #	Description
009-02076	MODULE, MAIN, 36V MTSSAP CA CHASSIS, V-CHIP, PIP, COMB FILT
009-02107	MODULE, SINGLE PIP, CA CHASSIS
012-10858-04	MOLDED PLASTIC, PANEL, JACK PACK, CA CHASSIS
014-12269-12	CABINET FRONT, TV, MOLDED PLASTIC, 35V-1R
014-12270-12	CABINET REAR, TV, MOLDED PLASTIC, 3536V
020-04330-34	COIL, DEGAUSSER
030-01532	DECORATIVE ITEM, LOGO, ZENITH
049-01368-03	SPEAKER, OVAL, 6 X 13 CM
124-00233-01	SPACE COMMAND, TRANSMITTER, MBR3457Z
192-00912	LENS, PRIMARY CONTROLS AND IR
206-03481	INSTR BOOK, OPERATION GUIDE
206-03553	INSTR BOOK, OPERATION GUIDE
A-18639	CRT ASSEMBLY, WDEFLECTION YOKE AND BEAM BENDER, 36V CTV
A-18681-01	LINE CORD ASSY, WITH YEONHO CONNECTOR
A-18695-04	GND STRAP ASSY, CRT
F-52060	KEYBOARD ASSY, 10 POSITION

## COMPONENT PARTS LIST REFERENCE CHART

Refer to the chart and Model Identifier to use the Component parts list.

**Notes: The following information is for Models in and out of warranty.**

**Models 27" and below are Component level repair only.**

**Models 32" and above are Module level repair only. Module part numbers are listed in the Model Parts List in the beginning of this section.**

To Order Parts: call 1-888-3-ZENITH  
 fax 1-888-6-ZENITH

By Mail: ZENITH NATIONAL PARTS  
 SALES AND DISTRIBUTION CENTER  
 P O Box 240007  
 Huntsville, AL 35824-6407

MODEL	IDENTIFIER
B25A02Z	A
B25A10Z	B
B25A10Z6	C
B25A10ZC	B
B25A10ZC6	C
B25A10ZCF	B
B25A11Z	D
B25A11Z6	E
B25A11ZF	D
B25A24Z	F
B25A24Z6	G
B25A24ZF	F
B25A30ZC	H
B25A30ZCF	H
B25A74R	I
B25A76R	I
B27A10Z	J
B27A10Z5	a
B27A10Z5	a
B27A10Z6	K
B27A10ZC	J
B27A10ZC5	a
B27A10ZC5	a
B27A10ZC6	K
B27A10ZCF	J
B27A11Z	L
B27A11Z5	M
B27A11Z6	N
B27A11Z65	O
B27A11ZC	L
B27A11ZC5	M
B27A24Z	P
B27A24Z5	Q
B27A24Z6	R
B27A24Z65	S
B27A24ZF	P
B27A24ZF5	Q
B27A30Z	T
B27A30ZC	T
B27A30ZC5	U
B27A30ZC6	V
B27A30ZC65	W
B27A30ZCF	T
B27A30ZCF5	U
B27A34Z	X
B27A34Z6	Y
B27A34ZF	X
B27A74R	Z
B27A74R5	Q
B27A76R	Z
B27A76R5	Q

MODEL	IDENTIFIER
CB25A25Z	F
CB25A25Z6	G
LGB26A11ZM	D
LGB26A11ZM6	E
LGB29A10ZM	J
LGB29A10ZM5	a
LGB29A10ZM5	a
LGB29A11ZM	L
LGB29A11ZM5	M
LGB29A13ZM	J
LGB29A24ZM	P
LGB29A24ZM5	Q
LGB29A30ZM	T
LGB29A30ZM5	U



# COMPONENT PARTS LIST

## SEE REFERENCE CHART ON PAGE 4-12

RC	REF	PART#	DESCRIPTION
ABCDEFGHIJKLMNQRSTUUVWXYZa	2C5	050-01666-13	CONNECTOR&CABLE, ASSY, 2.5MM, 5 CONTACT, 2 UP
ABCDEFGHIJKLMNQRSTUUVWXYZa	2F5	050-01665-12	CONNECTOR&CABLE, ASSY, 2.5MM, 4 CONTACT, 2 UP
FGHILMNOPQRSTUVWXYZ	2K6	058-00526-05	PLUG, 0.098P 5 CONTACT
ABCDEFGHIJKLMNQRSTUUVWXYZa	3R8	058-00546-03	PLUG, MULTIPRONG, 3 POSITION
ABCDEFGHIJKLMNQRSTUUVWXYZa	3T8	058-00546-02	PLUG, MULTIPRONG, 2 POSITION
ABCDEFGHIJKLMNQRSTUUVWXYZa	3Y3	058-00546-04	PLUG, MULTIPRONG, 4 POSITION
ABCDEFGHIJKLMNQRSTUUVWXYZa	4G9	058-00526-05	PLUG, 0.098P 5 CONTACT
ABCDEFGHIJKLMNQRSTUUVWXYZa	9S4	058-00526-04	PLUG, 0.098P 4 CONTACT
ABCDEFGHIJKLMNQRSTUUVWXYZa	C0841	022-08310-16	CAP, 1000 MFD 20% 25V, ELECTRO
ABCDEFGHIJKLMNQRSTUUVWXYZa	C0842	022-08049-24A	CAP, 0.10 MFD 10% 50V, POLYESTER
ABCDEFGHIJKLMNQRSTUUVWXYZa	C0843	022-08310-12A	CAP, 100 MFD 20% 25V, ELECTRO
BCDEFGHIJKLMNQRSTUUVWXYZa	C0851	022-08312-08A	CAP, 10 MFD 20% 50V, ELECTRO
ABCDEFGHIJKLMNQRSTUUVWXYZa	C0852	022-08309-12A	CAP, 100 MFD 20% 16V, ELECTRO
ABCDEFGHIJKLMNQRSTUUVWXYZa	C0853	022-08049-24A	CAP, 0.10 MFD 10% 50V, POLYESTER
BCDEFGHIJKLMNQRSTUUVWXYZa	C0854	022-08310-16	CAP, 1000 MFD 20% 25V, ELECTRO
BCDEHJKLMNOTUVWa	C0855M	022-08366-16A	CAP, 4,700 PFD 10% 50V, CERAMIC CHIP, LDLESS
A	C0855M	022-08366-17A	CAP, 5,600 PFD 10% 50V, CERAMIC CHIP, LDLESS
FGIPQRSXYZ	C0855M	022-08366-18A	CAP, 6,800 PFD 10% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMNQRSTUUVWXYZa	C0861	022-08312-08A	CAP, 10 MFD 20% 50V, ELECTRO
ABCDEFGHIJKLMNQRSTUUVWXYZa	C0862	022-08309-12A	CAP, 100 MFD 20% 16V, ELECTRO
ABCDEFGHIJKLMNQRSTUUVWXYZa	C0863	022-08049-24A	CAP, 0.10 MFD 10% 50V, POLYESTER
ABCDEFGHIJKLMNQRSTUUVWXYZa	C0864	022-08310-16	CAP, 1000 MFD 20% 25V, ELECTRO
BCDEHJKLMNOTUVWa	C0865M	022-08366-16A	CAP, 4,700 PFD 10% 50V, CERAMIC CHIP, LDLESS
A	C0865M	022-08366-17A	CAP, 5,600 PFD 10% 50V, CERAMIC CHIP, LDLESS
FGIPQRSXYV	C0865M	022-08366-18A	CAP, 6,800 PFD 10% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMNQRSTUUVWXYZa	C1200M	022-08368-20A	CAP, 10,000 PFD 10% 25V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMNQRSTUUVWXYZa	C1201M	022-08366-08A	CAP, 1,000 PFD 10% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMNQRSTUUVWXYZa	C1202M	022-08368-20A	CAP, 10,000 PFD 10% 25V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMNQRSTUUVWXYZa	C1203M	022-08366-08A	CAP, 1,000 PFD 10% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMNQRSTUUVWXYZa	C1204M	022-08366-08A	CAP, 1,000 PFD 10% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMNQRSTUUVWXYZa	C1205M	022-08368-20A	CAP, 10,000 PFD 10% 25V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMNQRSTUUVWXYZa	C1206	022-08312-03A	CAP, 0.47 MFD 20% 50V, ELECTRO
ABCDEFGHIJKLMNQRSTUUVWXYZa	C1207	022-08312-03A	CAP, 0.47 MFD 20% 50V, ELECTRO
ABCDEFGHIJKLMNQRSTUUVWXYZa	C1208M	022-08370-24A	CAP, 22,000 PFD 10% 16V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMNQRSTUUVWXYZa	C1209M	022-08368-20A	CAP, 10,000 PFD 10% 25V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMNQRSTUUVWXYZa	C1210	022-08309-13A	CAP, 220 MFD 20% 16V, ELECTRO

RC	REF	PART#	DESCRIPTION
ABCDEFGHIJKLMNQRSTUUVWXYZa	C1211M	022-08366-08A	CAP, 1,000 PFD 10% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMNQRSTUUVWXYZa	C1212	022-08312-03A	CAP, 0.47 MFD 20% 50V, ELECTRO
BCDEFGHIJKLMNQRSTUUVWXYZa	C1213M	022-08352-22A	CAP, 27 PFD 5% 50V, CERAMIC CHIP, LDLESS
A	C1213M	022-08366-16A	CAP, 4,700 PFD 10% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMNQRSTUUVWXYZa	C1214	022-08312-07A	CAP, 4.7 MFD 20% 50V, ELECTRO
ABCDEFGHIJKLMNQRSTUUVWXYZa	C1215M	022-08368-20A	CAP, 10,000 PFD 10% 25V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMNQRSTUUVWXYZa	C1216	022-08309-12A	CAP, 100 MFD 20% 16V, ELECTRO
ABCDEFGHIJKLMNQRSTUUVWXYZa	C1217M	022-08352-28A	CAP, 47 PFD 5% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMNQRSTUUVWXYZa	C1218M	022-08352-38A	CAP, 120 PFD 5% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMNQRSTUUVWXYZa	C1219M	022-08368-20A	CAP, 10,000 PFD 10% 25V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMNQRSTUUVWXYZa	C1220M	022-08368-20A	CAP, 10,000 PFD 10% 25V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMNQRSTUUVWXYZa	C1221M	022-08368-20A	CAP, 10,000 PFD 10% 25V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMNQRSTUUVWXYZa	C1222	022-08309-13A	CAP, 220 MFD 20% 16V, ELECTRO
ABCDEFGHIJKLMNQRSTUUVWXYZa	C1223M	022-08366-08A	CAP, 1,000 PFD 10% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMNQRSTUUVWXYZa	C1224	022-08049-24A	CAP, 0.10 MFD 10% 50V, POLYESTER
FGIPQRSXYZ	C1401M	022-08370-22A	CAP, 15,000 PFD 10% 16V, CERAMIC CHIP, LDLESS
FGIPQRSXYZ	C1402M	022-08366-18A	CAP, 6,800 PFD 10% 50V, CERAMIC CHIP, LDLESS
FGIPQRSXYZ	C1403M	022-08370-22A	CAP, 15,000 PFD 10% 16V, CERAMIC CHIP, LDLESS
FGIPQRSXYZ	C1404M	022-08366-18A	CAP, 6,800 PFD 10% 50V, CERAMIC CHIP, LDLESS
FGIPQRSXYZ	C1406M	022-08370-24A	CAP, 22,000 PFD 10% 16V, CERAMIC CHIP, LDLESS
DEFGHILMNOPQRSTUVWXYZ	C1409	022-08312-07A	CAP, 4.7 MFD 20% 50V, ELECTRO
DEFGHILMNOPQRSTUVWXYZ	C1410	022-08312-07A	CAP, 4.7 MFD 20% 50V, ELECTRO
BCDEFGHIJKLMNQRSTUUVWXYZa	C1413	022-08312-08A	CAP, 10 MFD 20% 50V, ELECTRO
BCDEFGHIJKLMNQRSTUUVWXYZa	C1414	022-07669-15A	CAP, 10 MFD 10% 50V, ELECTRO
BCDEFGHIJKLMNQRSTUUVWXYZa	C1415	022-08312-04A	CAP, 1 MFD 20% 50V, ELECTRO
BCDEFGHIJKLMNQRSTUUVWXYZa	C1416	022-08188-05A	CAP, 10 MFD 20% 25V, NONPLZD ELECTROLYTIC
BCDEFGHIJKLMNQRSTUUVWXYZa	C1417	022-08188-05A	CAP, 10 MFD 20% 25V, NONPLZD ELECTROLYTIC
BCDEFGHIJKLMNQRSTUUVWXYZa	C1418	022-08312-04A	CAP, 1 MFD 20% 50V, ELECTRO
BCDEFGHIJKLMNQRSTUUVWXYZa	C1419	022-07669-14A	CAP, 3.3 MFD 10% 50V, ELECTRO
BCDEFGHIJKLMNQRSTUUVWXYZa	C1420	022-08049-13A	CAP, 0.012 MFD 10% 50V, POLYESTER
BCDEFGHIJKLMNQRSTUUVWXYZa	C1421	022-08257-21A	CAP, 5600 PFD 10% 50V, CERAMIC DISC
BCDEFGHIJKLMNQRSTUUVWXYZa	C1422	022-08049-20A	CAP, 0.047 MFD 10% 50V, POLYESTER
BCDEHJKLMNOTUVWa	C1423	022-08312-04A	CAP, 1 MFD 20% 50V, ELECTRO
BCDEFGHIJKLMNQRSTUUVWXYZa	C1424	022-08257-17A	CAP, 2700 PFD 10% 50V, CERAMIC DISC
FGIPQRSXYZ	C1425	022-08312-07A	CAP, 4.7 MFD 20% 50V, ELECTRO



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## COMPONENT PARTS LIST

### SEE REFERENCE CHART ON PAGE 4-12

RC	REF	PART#	DESCRIPTION
FGIPQRSXYZ	C1426	022-08188-05A	CAP, 10 MFD 20% 25V, NONPLZD ELECTROLYTIC
BCDEFGHIJKLMNQPQRSTUVWXYZa	C1427	022-08188-05A	CAP, 10 MFD 20% 25V, NONPLZD ELECTROLYTIC
BCDEFGHIJKLMNQPQRSTUVWXYZa	C1428	022-08312-07A	CAP, 4.7 MFD 20% 50V, ELECTRO
BCDEHJKLMNQTUVW	C1429	022-08312-05A	CAP, 2.2 MFD 20% 50V, ELECTRO
BCDEFGHIJKLMNQPQRSTUVWXYZa	C1430	022-08309-12A	CAP, 100 MFD 20% 16V, ELECTRO
FGIPQRSXYZ	C1431M	022-08368-20A	CAP, 10,000 PFD 10% 25V, CERAMIC CHIP, LDLESS
FGIPQRSXYZ	C1432	022-08312-07A	CAP, 4.7 MFD 20% 50V, ELECTRO
BCDEFGHIJKLMNQPQRSTUVWXYZa	C1433M	022-08368-20A	CAP, 10,000 PFD 10% 25V, CERAMIC CHIP, LDLESS
BCDEFGHIJKLMNQPQRSTUVWXYZa	C1436	022-08312-04A	CAP, 1 MFD 20% 50V, ELECTRO
BCDEHJKLMNQTUVW	C1437	022-08312-05A	CAP, 2.2 MFD 20% 50V, ELECTRO
BCDEHJKLMNQTUVW	C1438	022-08312-07A	CAP, 4.7 MFD 20% 50V, ELECTRO
BCDEHJKLMNQTUVW	C1439	022-08309-12A	CAP, 100 MFD 20% 16V, ELECTRO
FGIPQRSXYZ	C1440	022-08309-14A	CAP, 330 MFD 20% 16V, ELECTRO
FGIPQRSXYZ	C1441M	022-08368-20A	CAP, 10,000 PFD 10% 25V, CERAMIC CHIP, LDLESS
FGIPQRSXYZ	C1442	022-08309-11A	CAP, 4.7 MFD 20% 16V, ELECTRO
FGIPQRSXYZ	C1443	022-08312-03A	CAP, 0.47 MFD 20% 50V, ELECTRO
FGIPQRSXYZ	C1444M	022-08368-20A	CAP, 10,000 PFD 10% 25V, CERAMIC CHIP, LDLESS
FGIPQRSXYZ	C1445	022-08309-11A	CAP, 4.7 MFD 20% 16V, ELECTRO
FGIPQRSXYZ	C1446	022-08312-03A	CAP, 0.47 MFD 20% 50V, ELECTRO
DEHLMNQTUVW	C1455	022-08312-07A	CAP, 4.7 MFD 20% 50V, ELECTRO
DEHLMNQTUVW	C1456	022-08312-07A	CAP, 4.7 MFD 20% 50V, ELECTRO
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2101	022-08312-07A	CAP, 4.7 MFD 20% 50V, ELECTRO
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2102	022-08049-24A	CAP, 0.10 MFD 10% 50V, POLYESTER
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2103	022-08049-24A	CAP, 0.10 MFD 10% 50V, POLYESTER
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2104	022-08312-08A	CAP, 10 MFD 20% 50V, ELECTRO
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2106	022-08049-24A	CAP, 0.10 MFD 10% 50V, POLYESTER
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2108	022-08310-11A	CAP, 4.7 MFD 20% 25V, ELECTRO
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2109	022-08312-08A	CAP, 10 MFD 20% 50V, ELECTRO
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2111	022-07786C	CAP, 1000 PFD 10% 500V, CERAMIC DISC
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2112	022-07786-10C	CAP, 470 PFD 10% 500V, CERAMIC DISC
ABCDEFHIJKLMNQPQRZa	C2201M	063-11059-09A	RESISTOR, THICK FILM CHIP, 22 OHM 5% 1/10W
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2202M	022-08352-14A	CAP, 12 PFD 5% 50V, CERAMIC CHIP, LDLESS
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2203	022-08312A	CAP, 0.1 MFD 20% 50V, ELECTRO
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2204	022-08312A	CAP, 0.1 MFD 20% 50V, ELECTRO
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2205	022-08312A	CAP, 0.1 MFD 20% 50V, ELECTRO

RC	REF	PART#	DESCRIPTION
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2206M	022-08368-20A	CAP, 10,000 PFD 10% 25V, CERAMIC CHIP, LDLESS
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2207	022-08312-07A	CAP, 4.7 MFD 20% 50V, ELECTRO
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2208	022-08312-05A	CAP, 2.2 MFD 20% 50V, ELECTRO
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2209	022-08309-12A	CAP, 100 MFD 20% 16V, ELECTRO
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2210M	022-08370-24A	CAP, 22,000 PFD 10% 16V, CERAMIC CHIP, LDLESS
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2213M	022-08368-20A	CAP, 10,000 PFD 10% 25V, CERAMIC CHIP, LDLESS
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2214M	022-08352-28A	CAP, 47 PFD 5% 50V, CERAMIC CHIP, LDLESS
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2215M	022-08366-04A	CAP, 470 PFD 10% 50V, CERAMIC CHIP, LDLESS
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2216	022-08312-04A	CAP, 1 MFD 20% 50V, ELECTRO
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2217M	022-08368-20A	CAP, 10,000 PFD 10% 25V, CERAMIC CHIP, LDLESS
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2218	022-08312-08A	CAP, 10 MFD 20% 50V, ELECTRO
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2219	022-08309-12A	CAP, 100 MFD 20% 16V, ELECTRO
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2220	022-08049-24A	CAP, 0.10 MFD 10% 50V, POLYESTER
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2221	022-08312A	CAP, 0.1 MFD 20% 50V, ELECTRO
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2222	022-08312A	CAP, 0.1 MFD 20% 50V, ELECTRO
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2223	022-08312-04A	CAP, 1 MFD 20% 50V, ELECTRO
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2224	022-08492-01A	CAP, 1 MFD 20% 50V, NONPLZD ELECTROLYTIC
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2225	022-08312-08A	CAP, 10 MFD 20% 50V, ELECTRO
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2226	022-08312-04A	CAP, 1 MFD 20% 50V, ELECTRO
FGIPQRSXYZ	C2227	022-08310-11A	CAP, 4.7 MFD 20% 25V, ELECTRO
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2229M	022-08354-41A	CAP, 160 PFD 5% 50V, CERAMIC CHIP, LDLESS
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2230	022-08312-08A	CAP, 10 MFD 20% 50V, ELECTRO
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2231	022-08049-24A	CAP, 0.10 MFD 10% 50V, POLYESTER
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2232M	022-08352-22A	CAP, 27 PFD 5% 50V, CERAMIC CHIP, LDLESS
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2235M	022-08368-20A	CAP, 10,000 PFD 10% 25V, CERAMIC CHIP, LDLESS
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2236M	022-08366A	CAP, 220 PFD 10% 50V, CERAMIC CHIP, LDLESS
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2237M	022-08366A	CAP, 220 PFD 10% 50V, CERAMIC CHIP, LDLESS
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2238M	022-08366-08A	CAP, 1,000 PFD 10% 50V, CERAMIC CHIP, LDLESS
HTUVWXY	C2239	022-08312-08A	CAP, 10 MFD 20% 50V, ELECTRO
ABCDEFHIJKLMNQPQRSTUVWXYZa	C2241	022-08310-10A	CAP, 33 MFD 20% 25V, ELECTRO
HTUVW	C2242M	022-08352-28A	CAP, 47 PFD 5% 50V, CERAMIC CHIP, LDLESS
ABCDEFHIJKLMNQPQRZa	C2242M	022-08352-38A	CAP, 120 PFD 5% 50V, CERAMIC CHIP, LDLESS
MOQSUW	C2254	022-07786-11C	CAP, 560 PFD 10% 500V, CERAMIC DISC
ABCDEFHIJKLMNPRVXYZ	C2254	022-08048-01A	CAP, 0.0012 MFD 5% 50V, POLYESTER
HTUVWXY	C2501M	022-08352-31A	CAP, 62 PFD 5% 50V, CERAMIC CHIP, LDLESS
HTUVWXY	C2502	022-08309-12A	CAP, 100 MFD 20% 16V, ELECTRO



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## COMPONENT PARTS LIST

### SEE REFERENCE CHART ON PAGE 4-12

RC	REF	PART#	DESCRIPTION
HTUVWXY	C2504	022-08309-11A	CAP, 47 MFD 20% 16V, ELECTRO
HTUVWXY	C2505	022-08312-08A	CAP, 10 MFD 20% 50V, ELECTRO
HTUVWXY	C2506	022-08309-11A	CAP, 47 MFD 20% 16V, ELECTRO
HTUVWXY	C2507M	022-08366-20	CAP, 10,000 PFD 10% 50V, CERAMIC CHIP, LDLESS
HTUVWXY	C2508	022-08312-08A	CAP, 10 MFD 20% 50V, ELECTRO
HTUVWXY	C2509M	022-08368-20A	CAP, 10,000 PFD 10% 25V, CERAMIC CHIP, LDLESS
HTUVWXY	C2510M	022-08368-20A	CAP, 10,000 PFD 10% 25V, CERAMIC CHIP, LDLESS
HTUVWXY	C2511	022-08312A	CAP, 0.1 MFD 20% 50V, ELECTRO
HTUVWXY	C2512M	022-08368-20A	CAP, 10,000 PFD 10% 25V, CERAMIC CHIP, LDLESS
HTUVWXY	C2513	022-08312-01A	CAP, 0.22 MFD 20% 50V, ELECTRO
HTUVWXY	C2514M	022-08366-20	CAP, 10,000 PFD 10% 50V, CERAMIC CHIP, LDLESS
HTUVWXY	C2515	022-08310-11A	CAP, 47 MFD 20% 25V, ELECTRO
HTUVWXY	C2516M	022-08366-28	CAP, 47,000 PFD 10% 50V, CERAMIC CHIP, LDLESS
HTUVWXY	C2517	022-08312-01A	CAP, 0.22 MFD 20% 50V, ELECTRO
HTUVWXY	C2518M	022-08352-14A	CAP, 12 PFD 5% 50V, CERAMIC CHIP, LDLESS
HTUVWXY	C2519M	022-08352-38A	CAP, 120 PFD 5% 50V, CERAMIC CHIP, LDLESS
HTUVWXY	C2520M	022-08366A	CAP, 220 PFD 10% 50V, CERAMIC CHIP, LDLESS
HTUVWXY	C2521M	022-08368-20A	CAP, 10,000 PFD 10% 25V, CERAMIC CHIP, LDLESS
HTUVWXY	C2522M	022-08368-20A	CAP, 10,000 PFD 10% 25V, CERAMIC CHIP, LDLESS
HTUVWXY	C2524	022-08312-08A	CAP, 10 MFD 20% 50V, ELECTRO
HTUVWXY	C2526	022-08312-08A	CAP, 10 MFD 20% 50V, ELECTRO
HTUVWXY	C2527	022-08312-08A	CAP, 10 MFD 20% 50V, ELECTRO
HTUVWXY	C2529M	022-08368-20A	CAP, 10,000 PFD 10% 25V, CERAMIC CHIP, LDLESS
HTUVWXY	C2530	022-08312-03A	CAP, 0.47 MFD 20% 50V, ELECTRO
HTUVWXY	C2531	022-08048-01A	CAP, 0.0012 MFD 5% 50V, POLYESTER
HTUVWXY	C2532	022-08247-46A	CAP, 330 PFD 5% 50V, CERAMIC DISC
HTUVWXY	C2534M	022-08366-08A	CAP, 1,000 PFD 10% 50V, CERAMIC CHIP, LDLESS
HTUVWXY	C2536M	022-08366A	CAP, 220 PFD 10% 50V, CERAMIC CHIP, LDLESS
FGHIPQRSTUWXYZ	C2900	022-08312-08A	CAP, 10 MFD 20% 50V, ELECTRO
FGHIPQRSTUWXYZ	C2904	022-08309-12A	CAP, 100 MFD 20% 16V, ELECTRO
FGIPQRSXYZ	C2906	022-08312-08A	CAP, 10 MFD 20% 50V, ELECTRO
FGIPQRSXYZ	C2907M	022-08368-20A	CAP, 10,000 PFD 10% 25V, CERAMIC CHIP, LDLESS
HTUVWXY	C2908	022-08312-08A	CAP, 10 MFD 20% 50V, ELECTRO
HTUVWXY	C2909	022-08312-08A	CAP, 10 MFD 20% 50V, ELECTRO
XY	C2910	022-08312-08A	CAP, 10 MFD 20% 50V, ELECTRO

RC	REF	PART#	DESCRIPTION
HTUVWXY	C2911	022-08309-12A	CAP, 100 MFD 20% 16V, ELECTRO
XY	C2912M	022-08352-31A	CAP, 62 PFD 5% 50V, CERAMIC CHIP, LDLESS
XY	C2913	022-08309-12A	CAP, 100 MFD 20% 16V, ELECTRO
XY	C2914	022-08312-08A	CAP, 10 MFD 20% 50V, ELECTRO
XY	C2916	022-08257-24A	CAP, 10,000 PFD 10% 50V, CERAMIC DISC
XY	C2917M	022-08352-31A	CAP, 62 PFD 5% 50V, CERAMIC CHIP, LDLESS
HTUVWXY	C2918	022-08312-08A	CAP, 10 MFD 20% 50V, ELECTRO
FGIPQRSXYZ	C2919	022-08312-08A	CAP, 10 MFD 20% 50V, ELECTRO
ABCDEFGHIJKLMNQRSTUWXYZa	C3201M	022-08352-28A	CAP, 47 PFD 5% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMNQRSTUWXYZa	C3202	022-08257-08A	CAP, 470 PFD 10% 50V, CERAMIC DISC
ABCDEFGHIJKLMNQRSTUWXYZa	C3203	022-08049-16A	CAP, 0.022 MFD 10% 50V, POLYESTER
ABCDEFGHIJKLMNQRSTUWXYZa	C3204	022-07786-17C	CAP, 2200 PFD 10% 500V, CERAMIC DISC
ABCDEFGHIJKLMNQRSTUWXYZa	C3206	022-07811A	CAP, 1000 PFD 10% 1000V, CERAMIC DISC
ABCDEFGHIJKLMNQRSTUWXYZa	C3209	022-07786-10C	CAP, 470 PFD 10% 500V, CERAMIC DISC
ABCDEFGHIJKLMNQRSTUWXYZa	C3419	022-07786-10C	CAP, 470 PFD 10% 500V, CERAMIC DISC
ABCDEFGHIJKLMNQRSTUWXYZa	C3421	022-07786-10C	CAP, 470 PFD 10% 500V, CERAMIC DISC
ABCDEFGHIJKLMNQRSTUWXYZa	C3425	022-08310-15	CAP, 470 MFD 20% 25V, ELECTRO
ABCDEFGHIJKLMNQRSTUWXYZa	C3426	022-08309-13A	CAP, 220 MFD 20% 16V, ELECTRO
ABCDEFGHIJKLMNQRSTUWXYZa	C3429	022-08309-12A	CAP, 100 MFD 20% 16V, ELECTRO
ABCDEFGHIJKLMNQRSTUWXYZa	C3460	022-08310-13A	CAP, 220 MFD 20% 25V, ELECTRO
ABCDEFGHIJKLMNQRSTUWXYZa	C5101	022-08318-04A	CAP, 1 MFD 20% 350V, ELECTRO
ABCDEFGHIJKLMNQRSTUWXYZa	C5102M	022-08366A	CAP, 220 PFD 10% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMNQRSTUWXYZa	C5103M	022-08366A	CAP, 220 PFD 10% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMNQRSTUWXYZa	C5104	022-07523-01B	CAP, 0.01 MFD +80 % & -20 % 2000V, CERAMIC DI
ABCDEFGHIJKLMNQRSTUWXYZa	C5105M	022-08366A	CAP, 220 PFD 10% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMNQRSTUWXYZa	C5106M	022-08366A	CAP, 220 PFD 10% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMNQRSTUWXYZa	C5107	022-08309-13A	CAP, 220 MFD 20% 16V, ELECTRO
ABCDEFGHIJKLMNQRSTUWXYZa	C5108M	022-08366A	CAP, 220 PFD 10% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMNQRSTUWXYZa	C5109M	022-08366A	CAP, 220 PFD 10% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMNQRSTUWXYZa	C5110	022-08049-24A	CAP, 0.10 MFD 10% 50V, POLYESTER
ABCDEFGHIJKLMNQRSTUWXYZa	C5111	022-07786-10C	CAP, 470 PFD 10% 500V, CERAMIC DISC
ABCDEFGHIJKLMNQRSTUWXYZa	C6001M	022-08352-38A	CAP, 120 PFD 5% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMNQRSTUWXYZa	C6003M	022-08366-04A	CAP, 470 PFD 10% 50V, CERAMIC CHIP, LDLESS
ABCDEJKa	C6004	022-08312-07A	CAP, 4.7 MFD 20% 50V, ELECTRO
ABCDEFGHIJKLMNQRSTUWXYZa	C6005M	022-08366A	CAP, 220 PFD 10% 50V, CERAMIC CHIP, LDLESS



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## COMPONENT PARTS LIST

### SEE REFERENCE CHART ON PAGE 4-12

RC	REF	PART#	DESCRIPTION
ABCDEFGHIJKLMN	C6006	022-08312-04A	CAP, 1 MFD 20% 50V, ELECTRO
ABCDEFGHIJKLMN	C6007M	022-08366-08A	CAP, 1,000 PFD 10% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMN	C6009	022-08049-24A	CAP, 0.10 MFD 10% 50V, POLYESTER
ABCDEFGHIJKLMN	C6010M	022-08352-19A	CAP, 20 PFD 5% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMN	C6011M	022-08352-19A	CAP, 20 PFD 5% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMN	C6012M	022-08368-20A	CAP, 10,000 PFD 10% 25V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMN	C6013	022-08309-13A	CAP, 220 MFD 20% 16V, ELECTRO
ABCDEJLMNOa	C6014M	022-08352-22A	CAP, 27 PFD 5% 50V, CERAMIC CHIP, LDLESS
FGHIPQRSTUWXYZ	C6014M	022-08352-32A	CAP, 68 PFD 5% 50V, CERAMIC CHIP, LDLESS
ABCDEJLMNOa	C6015M	022-08352-22A	CAP, 27 PFD 5% 50V, CERAMIC CHIP, LDLESS
FGHIPQRSTUWXYZ	C6015M	022-08352-32A	CAP, 68 PFD 5% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMN	C6016	022-08312-05A	CAP, 2.2 MFD 20% 50V, ELECTRO
ABCDEFGHIJKLMN	C6017	022-08049-24A	CAP, 0.10 MFD 10% 50V, POLYESTER
ABCDEFGHIJKLMN	C6018M	022-08366-12A	CAP, 2,200 PFD 10% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMN	C6019M	022-08366-04A	CAP, 470 PFD 10% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMN	C6020	022-08312-07A	CAP, 4.7 MFD 20% 50V, ELECTRO
ABCDEFGHIJKLMN	C6021M	022-08368-20A	CAP, 10,000 PFD 10% 25V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMN	C6023M	022-08352-28A	CAP, 47 PFD 5% 50V, CERAMIC CHIP, LDLESS
HTUVW	C6023M	022-08354-41A	CAP, 160 PFD 5% 50V, CERAMIC CHIP, LDLESS
CEGKNORSVWY	C6026M	022-08368-20A	CAP, 10,000 PFD 10% 25V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMN	C6028	022-08312-07A	CAP, 4.7 MFD 20% 50V, ELECTRO
ABCDEFGHIJKLMN	C6029M	022-08368-20A	CAP, 10,000 PFD 10% 25V, CERAMIC CHIP, LDLESS
CEGKNORSVWY	C6030	022-08309-12A	CAP, 100 MFD 20% 16V, ELECTRO
ABDFHIJLMPQTUXZa	C6030	022-08309-16	CAP, 1000 MFD 20% 16V, ELECTRO
ABCDEFGHIJKLMN	C6031M	022-08366-12A	CAP, 2,200 PFD 10% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMN	C6032	022-08312-04A	CAP, 1 MFD 20% 50V, ELECTRO
FGGILMNOPQRSTUWXYZ	C6036M	022-08366-08A	CAP, 1,000 PFD 10% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMN	C6037	022-08257-04A	CAP, 220 PFD 10% 50V, CERAMIC DISC
ABCDEFGHIJKLMN	C6038M	022-08352-28A	CAP, 47 PFD 5% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMN	C6040M	022-08352-38A	CAP, 120 PFD 5% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMN	C6041M	022-08352-28A	CAP, 47 PFD 5% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMN	C6042M	022-08368-20A	CAP, 10,000 PFD 10% 25V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMN	C6043M	022-08368-20A	CAP, 10,000 PFD 10% 25V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMN	C6045M	022-08352-28A	CAP, 47 PFD 5% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMN	C6046M	022-08366-04A	CAP, 470 PFD 10% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMN	C6047M	022-08352-28A	CAP, 47 PFD 5% 50V, CERAMIC CHIP, LDLESS

RC	REF	PART#	DESCRIPTION
ABCDEFGHIJKLMN	C6048M	022-08352-28A	CAP, 47 PFD 5% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMN	C6049M	022-08352-28A	CAP, 47 PFD 5% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMN	C6050M	022-08352-28A	CAP, 47 PFD 5% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMN	C6051M	022-08354-41A	CAP, 160 PFD 5% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMN	C6052M	022-08354-41A	CAP, 160 PFD 5% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMN	C6053M	022-08354-41A	CAP, 160 PFD 5% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMN	C6055M	022-08352-28A	CAP, 47 PFD 5% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMN	C6056M	022-08368-20A	CAP, 10,000 PFD 10% 25V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMN	C6058M	022-08352-28A	CAP, 47 PFD 5% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMN	C6061M	022-08352-28A	CAP, 47 PFD 5% 50V, CERAMIC CHIP, LDLESS
XY	C6064M	022-08366A	CAP, 220 PFD 10% 50V, CERAMIC CHIP, LDLESS
XY	C6065M	022-08352-19A	CAP, 20 PFD 5% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMN	C6068M	022-08366-12A	CAP, 2,200 PFD 10% 50V, CERAMIC CHIP, LDLESS
CEGKNORSVWY	C6069M	022-08352-28A	CAP, 47 PFD 5% 50V, CERAMIC CHIP, LDLESS
CEGKNORSVWY	C6070M	022-08352-28A	CAP, 47 PFD 5% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMN	C6079M	022-08352-28A	CAP, 47 PFD 5% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMN	C6090M	022-08352-28A	CAP, 47 PFD 5% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMN	C6092M	022-08352-28A	CAP, 47 PFD 5% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMN	C6093M	022-08352-31A	CAP, 62 PFD 5% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMN	C6094M	022-08352-31A	CAP, 62 PFD 5% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMN	C6095M	022-08352-28A	CAP, 47 PFD 5% 50V, CERAMIC CHIP, LDLESS
ABCDEFGHIJKLMN	C6098	022-08312-07A	CAP, 4.7 MFD 20% 50V, ELECTRO
ABCDEFGHIJKLMN	CR2201	224-00027A	CRYSTAL, QUARTZ, 3.579 MHZ
ABCDEFGHIJKLMN	CR2202	224-00178	RESONATOR, CERAMIC, 503 KHZ
HTUVWXY	CR2501	224-00061-04	CRYSTAL, QUARTZ, 14.31818 MHZ
ABCDEFGHIJKLMN	CRT0001	078-03394-09	SOCKET, CRT
ABCDEFGHIJKLMN	CRY6001	224-00074-02A	CRYSTAL, QUARTZ, 8 MHZ
ABCDEFGHIJKLMN	CX2105	022-08311-13	CAP, 220 MFD 20% 35V, ELECTRO
XY	CX2107	022-08310-16	CAP, 1000 MFD 20% 25V, ELECTRO
ABCDEFGHIJKLMN	CX2107	022-08310-17	CAP, 2200 MFD 20% 25V, ELECTRO
ABCDEFGHIJKLMN	CX2110	022-08311-12A	CAP, 100 MFD 20% 35V, ELECTRO
ABCDEFGHIJKLMN	CX3003	022-08312-08A	CAP, 10 MFD 20% 50V, ELECTRO
ABCDEFGHIJKLMN	CX3004	022-08312-08A	CAP, 10 MFD 20% 50V, ELECTRO
ABCDEFGHIJKLMN	CX3007	022-07786-10C	CAP, 470 PFD 10% 500V, CERAMIC DISC
ABCDEFGHIJKLMN	CX3205	022-08309-12A	CAP, 100 MFD 20% 16V, ELECTRO
ABCDEFGHIJKLMN	CX3207A	022-08159	CAP, 0.68 MFD 10% 200V, POLYESTER



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# COMPONENT PARTS LIST

## SEE REFERENCE CHART ON PAGE 4-12

RC	REF	PART#	DESCRIPTION
ABCDEFGHIJKLMNQRSTUWXYZa	CX3208	022-08317-08	CAP, 10 MFD 20% 250V, ELECTRO
MOQSUWa	CX3210	022-08386-01	CAP, 270 PFD 10% 2000V, CERAMIC DISC
XY	CX3211	022-08386-08	CAP, 1000 PFD 10% 2000V, CERAMIC DISC
JKLMNOPQRSTUWZa	CX3212	022-08386-05	CAP, 560 PFD 10% 2000V, CERAMIC DISC
ABCDEFGHIJKLMNQRSTUWXYZa	CX3215	022-07786-10C	CAP, 470 PFD 10% 500V, CERAMIC DISC
ABCDEFGHIJKLMNQRSTUWXYZa	CX3216	022-08229-27	CAP, 0.013 MFD 3% 1600VDC, POLYPROPYLENE
XY	CX3217	022-08231-11	CAP, 0.39 MFD 5% 200V, POLYPROPYLENE
JKLNPRVTZ	CX3217	022-08231-12	CAP, 0.47 MFD 5% 200V, POLYPROPYLENE
ABCDEFGHI	CX3217	022-08231-13	CAP, 0.56 MFD 5% 200V, POLYPROPYLENE
MOQSUWa	CX3217	091-02053	WIRE, SOLID, BARE, 22 GA COPPER
ABCDEFGHIJKLMNQRSTUWXYZa	CX3218	022-08315-05A	CAP, 2.2 MFD 20% 160V, ELECTRO
JKLMNOPQRSTUWZa	CX3219	022-08227-04A	CAP, 0.022 MFD 5% 50V, POLYESTER
MOQSUWa	CX3251	091-02053	WIRE, SOLID, BARE, 22 GA COPPER
ABCDEFGHIJKLMNQRSTUWXYZa	CX3253	022-08312-11A	CAP, 47 MFD 20% 50V, ELECTRO
ABCDEFGHIJKLMNQRSTUWXYZa	CX3254	022-07786-10C	CAP, 470 PFD 10% 500V, CERAMIC DISC
ABCDEFGHIJKLMNQRSTUWXYZa	CX3400	022-07431-06B	CAP, 0.0047 MFD 20%, CERAMIC DISC
ABCDEFGHIJKLMNQRSTUWXYZa	CX3401	022-07867-10	CAP, 0.1 MFD 20% 250VAC, POLYESTER
ABCDEFGHIJKLMNQRSTUWXYZa	CX3402	022-07431-06B	CAP, 0.0047 MFD 20%, CERAMIC DISC
ABCDEFGHIJKLMNQRSTUWXYZa	CX3403	022-07811A	CAP, 1000 PFD 10% 1000V, CERAMIC DISC
ABCDEFGHIJKLMNQRSTUWXYZa	CX3404	022-07811A	CAP, 1000 PFD 10% 1000V, CERAMIC DISC
ABCDEFGHIJKLMNQRSTUWXYZa	CX3405	022-07811A	CAP, 1000 PFD 10% 1000V, CERAMIC DISC
ABCDEFGHIJKLMNQRSTUWXYZa	CX3406	022-07811A	CAP, 1000 PFD 10% 1000V, CERAMIC DISC
ABCDEFGHIJKLMNQRSTUWXYZa	CX3407	022-08444-09	CAP, 330 MFD 20% 200V, ELECTRO
ABCDEFGHIJKLMNQRSTUWXYZa	CX3408	022-07786-10C	CAP, 470 PFD 10% 500V, CERAMIC DISC
ABCDEFGHIJKLMNQRSTUWXYZa	CX3409	022-08386-08	CAP, 1000 PFD 10% 2000V, CERAMIC DISC
ABCDEFGHIJKLMNQRSTUWXYZa	CX3410	022-07786C	CAP, 1000 PFD 10% 500V, CERAMIC DISC
ABCDEFGHIJKLMNQRSTUWXYZa	CX3411	022-08049-18A	CAP, 0.033 MFD 10% 50V, POLYESTER
ABCDEFGHIJKLMNQRSTUWXYZa	CX3412	022-07786C	CAP, 1000 PFD 10% 500V, CERAMIC DISC
ABCDEFGHIJKLMNQRSTUWXYZa	CX3413	022-08312-09A	CAP, 22 MFD 20% 50V, ELECTRO
ABCDEFGHIJKLMNQRSTUWXYZa	CX3415	022-08008-12	CAP, .01 MFD 5% 1250V, POLYPROPYLENE
ABCDEFGHIJKLMNQRSTUWXYZa	CX3416	022-08310-12A	CAP, 100 MFD 20% 25V, ELECTRO
ABCDEFGHIJKLMNQRSTUWXYZa	CX3418	022-07786-01C	CAP, 220 PFD 10% 500V, CERAMIC DISC
ABCDEFGHIJKLMNQRSTUWXYZa	CX3420	022-08444-07	CAP, 220 MFD 20% 200V, ELECTRO
ABCDEFGHIJKLMNQRSTUWXYZa	CX3424	022-08310-16	CAP, 1000 MFD 20% 25V, ELECTRO
ABCDEFGHIJKLMNQRSTUWXYZa	CX3430	022-08310-15	CAP, 470 MFD 20% 25V, ELECTRO
CEGKNORSVWY	CX6027	022-08309-15A	CAP, 470 MFD 20% 16V, ELECTRO

RC	REF	PART#	DESCRIPTION
BCDEHJKLMNOTUVWa	D1401	103-00461A	DIODE, ULTRA FAST SWITCHING, HIGH CONDUCTANCE
ABCDEFGHIJKLMNQRSTUWXYZa	D2201	103-00461A	DIODE, ULTRA FAST SWITCHING, HIGH CONDUCTANCE
ABCDEFGHIJKLMNQRSTUWXYZa	D2202	103-00461A	DIODE, ULTRA FAST SWITCHING, HIGH CONDUCTANCE
ABCDEFGHIJKLMNQRSTUWXYZa	D2203	103-00461A	DIODE, ULTRA FAST SWITCHING, HIGH CONDUCTANCE
ABCDEFGHIJKLMNQRSTUWXYZa	D2204	103-00461A	DIODE, ULTRA FAST SWITCHING, HIGH CONDUCTANCE
ABCDEFGHIJKLMNQRSTUWXYZa	D2205	103-00461A	DIODE, ULTRA FAST SWITCHING, HIGH CONDUCTANCE
XY	D2207	103-00461A	DIODE, ULTRA FAST SWITCHING, HIGH CONDUCTANCE
XY	D2208	103-00461A	DIODE, ULTRA FAST SWITCHING, HIGH CONDUCTANCE
XY	D2209	103-00461A	DIODE, ULTRA FAST SWITCHING, HIGH CONDUCTANCE
HTUVWXY	D2210	103-00461A	DIODE, ULTRA FAST SWITCHING, HIGH CONDUCTANCE
HTUVWXY	D2211	103-00461A	DIODE, ULTRA FAST SWITCHING, HIGH CONDUCTANCE
HTUVWXY	D2212	103-00461A	DIODE, ULTRA FAST SWITCHING, HIGH CONDUCTANCE
HTUVWXY	D2501	103-00461A	DIODE, ULTRA FAST SWITCHING, HIGH CONDUCTANCE
HTUVWXY	D2502	103-00347-03A	DIODE, LOW VOLTAGE GENERAL, SILICON
ABCDEFGHIJKLMNQRSTUWXYZa	D3410	103-00589	DIODE, FAST RECOVERY RECTIFIER, 400 PIV
ABCDEFGHIJKLMNQRSTUWXYZa	D3411	103-00589	DIODE, FAST RECOVERY RECTIFIER, 400 PIV
ABCDEFGHIJKLMNQRSTUWXYZa	D5101	103-00279-04A	DIODE, ZENER, 3V 0.5W
ABCDEFGHIJKLMNQRSTUWXYZa	D5102	103-00344-06A	DIODE, LOW VOLTAGE GENERAL
ABCDEFGHIJKLMNQRSTUWXYZa	D6001	103-00461A	DIODE, ULTRA FAST SWITCHING, HIGH CONDUCTANCE
ABCDEFGHIJKLMNQRSTUWXYZa	D6002	103-00461A	DIODE, ULTRA FAST SWITCHING, HIGH CONDUCTANCE
ABCDEFGHIJKLMNQRSTUWXYZa	DAG0000	A-19197	GROUNDING ASSY , WIRE AND TERMINAL, WHITE, DAG
ABCDEFGHIJKLMNQRSTUWXYZa	DAG0001	A-19197	GROUNDING ASSY , WIRE AND TERMINAL, WHITE, DAG
FGIPQRSXYV	DL2200	223-00045	INTD CKT PKG, NTSC COMB FILTER, HYBRID
ABCDEFGHIJKLMNQRSTUWXYZa	DX2101	103-00347-03A	DIODE, LOW VOLTAGE GENERAL, SILICON
ABCDEFGHIJKLMNQRSTUWXYZa	DX2102	103-00461A	DIODE, ULTRA FAST SWITCHING, HIGH CONDUCTANCE
ABCDEFGHIJKLMNQRSTUWXYZa	DX2103	103-00461A	DIODE, ULTRA FAST SWITCHING, HIGH CONDUCTANCE
ABCDEFGHIJKLMNQRSTUWXYZa	DX2104	103-00339-04A	DIODE, LOW VOLTAGE GENERAL, SILICON



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## COMPONENT PARTS LIST

### SEE REFERENCE CHART ON PAGE 4-12

RC	REF	PART#	DESCRIPTION
ABCDEFGHIJKLMNQRSTUUVWXYz	DX3005	103-00461A	DIODE, ULTRA FAST SWITCHING, HIGH CONDUCTANCE
ABCDEFGHIJKLMNQRSTUUVWXYz	DX3006	103-00344-06A	DIODE, LOW VOLTAGE GENERAL
ABCDEFGHIJKLMNQRSTUUVWXYz	DX3201	103-00344-06A	DIODE, LOW VOLTAGE GENERAL
ABCDEFGHIJKLMNQRSTUUVWXYz	DX3203	103-00347-03A	DIODE, LOW VOLTAGE GENERAL, SILICON
ABCDEFGHIJKLMNQRSTUUVWXYz	DX3204	103-00461A	DIODE, ULTRA FAST SWITCHING, HIGH CONDUCTANCE
ABCDEFGHIJKLMNQRSTUUVWXYz	DX3252	103-00344-06A	DIODE, LOW VOLTAGE GENERAL
ABCDEFGHIJKLMNQRSTUUVWXYz	DX3401	103-00588A	DIODE, LOW VOLTAGE GENERAL
ABCDEFGHIJKLMNQRSTUUVWXYz	DX3402	103-00588A	DIODE, LOW VOLTAGE GENERAL
ABCDEFGHIJKLMNQRSTUUVWXYz	DX3403	103-00588A	DIODE, LOW VOLTAGE GENERAL
ABCDEFGHIJKLMNQRSTUUVWXYz	DX3404	103-00588A	DIODE, LOW VOLTAGE GENERAL
ABCDEFGHIJKLMNQRSTUUVWXYz	DX3405	103-00347-03A	DIODE, LOW VOLTAGE GENERAL, SILICON
ABCDEFGHIJKLMNQRSTUUVWXYz	DX3406	103-00344-06A	DIODE, LOW VOLTAGE GENERAL
ABCDEFGHIJKLMNQRSTUUVWXYz	DX3407	103-00344-06A	DIODE, LOW VOLTAGE GENERAL
ABCDEFGHIJKLMNQRSTUUVWXYz	DX3408	103-00344-06A	DIODE, LOW VOLTAGE GENERAL
ABCDEFGHIJKLMNQRSTUUVWXYz	EX3401	038-00102	SPARK GAP, HIGH VOLTAGE, 4KV DC
IZ	FX3401	136-00114-23A	FUSE, NORMAL LAG, 4 AMP 250V
ABCDEFGHIJKLMNQRSTUUVWXYz	FX3401	136-00114-23C	FUSE, NORMAL LAG, 4 AMP 250V
IZ	FX3402	136-00148-23	FUSE, NORMAL LAG, 3 AMP 250V
ABCDEFGHIJKLMNQRSTUUVWXYz	FX3402	136-00148-23C	FUSE, NORMAL LAG, 3 AMP 250V
ABCDEFGHIJKLMNQRSTUUVWXYz	IC0804	126-03700	HEAT SINK, IC, AUDIO AMPLIFIER
ABCDEFGHIJKLMNQRSTUUVWXYz	IC0804	221-00598-01	INTEGRATED CKT, AUDIO POWER AMP
FGIPQRSXYZ	IC1400	221-01127	INTEGRATED CKT, MTS STEREO DECODER/VOL.LIMITER AND
BCDEHJKLMNOTUVWz	IC1400	221-01382	INTEGRATED CKT, AUDIO MULTIPLEXING DECODER, USA
DEHLMNOTUVW	IC1401	221-01171	INTEGRATED CKT, AUDIO/VIDEO SWITCH, 2 CHAN/2 POSIT
BCDEHJKLMNOTUVWz	IC1402	221-01380	INTEGRATED CKT, STEREO AMP, AND DC VOL/CONTROL
Z	IC2100	126-03626	HEAT SINK, TRANSISTOR, HORIZONTAL OUTPUT
ABCDEFGHIJKLMNQRSTUUVWXYz	IC2100	126-03626-04	HEAT SINK, TRANSISTOR, HORIZONTAL OUTPUT
ABCDEFGHIJKLMNQRSTUUVWXYz	IC2100	221-00992-01	INTEGRATED CKT, VERTICAL DEFLECTION
HTUVWXY	IC2501	221-01393	INTEGRATED CKT, Y/C PIP CONTROLLER
HTUVWXY	IC2502	221-01183	INTEGRATED CKT, ANALOG MULTIPLEX/DEMULTIPLEX, TRIP
FGHIPQRSTUUVWXYZ	IC2901	221-01171	INTEGRATED CKT, AUDIO/VIDEO SWITCH, 2 CHAN/2 POSIT
HTUVWXY	IC2902	221-01171	INTEGRATED CKT, AUDIO/VIDEO SWITCH, 2 CHAN/2 POSIT
ABCDEFGHIJKLMNQRSTUUVWXYz	IC6000	126-03446-02	SHIELD, EMI, MICROPROCESSOR
BCDEJKLMNOz	IC6000	221-01384-01	INTEGRATED CKT, 8-BIT MICROCOMPUTER
AFGIPQRSZ	IC6000	221-01384-02	INTEGRATED CKT, 8-BIT MICROCOMPUTER
HTUVW	IC6000	221-01386-01	INTEGRATED CKT, 8-BIT MICROCOMPUTER
XY	IC6000	221-01387-01	INTEGRATED CKT, 8-BIT MICROCOMPUTER

RC	REF	PART#	DESCRIPTION
ABCDEFGHIJKLMNQRSTUUVWXYz	IC6001	221-00745-04	INTEGRATED CKT, 4K BIT SERIAL EEPROM
ABCDEFGHIJKLMNQRSTUUVWXYz	IC6002	221-01177A	INTEGRATED CKT, SYSTEM RESET
ABCDEFGHIJKLMNQRSTUUVWXYz	ICX2200	221-01165	INTEGRATED CKT, I2C BUS CONTROL NTSC
ABCDEFGHIJKLMNQRSTUUVWXYz	ICX3400	126-03660-01	HEATSINK, TRANSISTOR
ABCDEFGHIJKLMNQRSTUUVWXYz	ICX3400	223-00028	INTD CKT PKG, HYBRID, VOLTAGE REGULATOR
ABCDEFGHIJKLMNQRSTUUVWXYz	ICX3401	126-03326-02	HEATSINK, TRANSISTOR
ABCDEFGHIJKLMNQRSTUUVWXYz	ICX3401	221-00213-09	INTEGRATED CKT, 9 VOLT, 1 AMP, LINEAR, REGULATOR
ABCDEFGHIJKLMNQRSTUUVWXYz	ICX3402	126-02131-01	HEAT SINK, TRANSISTOR
ABCDEFGHIJKLMNQRSTUUVWXYz	ICX3402	221-00213	INTEGRATED CKT, 5 VOLT, 1 AMP, LINEAR, REGULATOR
ABCDEJKz	IR6000	012-10795	BRACKET, IR DETECTOR MOUNTING
ABCDEJKz	IR6000	162-00046	IR DETECTOR
FGIPQRSXYZ	J0001	A-18785-02	JACK ASSEMBLY, 5 PHONO/1 Y-C
DEHLMNOTUVW	J0001	A-18785-03	JACK ASSEMBLY, AV, 3 PHONO
ABCDEFGHIJKLMNQRSTUUVWXYz	J0003M	063-11059A	RESISTOR, THICK FILM CHIP, 0 OHM 5% 1/10W
ABCDEFGHIJKLMNQRSTUUVWXYz	J0006M	063-11059A	RESISTOR, THICK FILM CHIP, 0 OHM 5% 1/10W
ABCDEFGHIJKLMNQRSTUUVWXYz	J0007M	063-11059A	RESISTOR, THICK FILM CHIP, 0 OHM 5% 1/10W
ABCDEFGHIJKLMNQRSTUUVWXYz	J0008M	063-11059A	RESISTOR, THICK FILM CHIP, 0 OHM 5% 1/10W
ABCDEFGHIJKLMNQRSTUUVWXYz	J0009M	063-11059A	RESISTOR, THICK FILM CHIP, 0 OHM 5% 1/10W
ABCDEFGHIJKLMNQRSTUUVWXYz	J0010M	063-11059A	RESISTOR, THICK FILM CHIP, 0 OHM 5% 1/10W
ABCDEFGHIJKLMNQRSTUUVWXYz	J0012M	063-11059A	RESISTOR, THICK FILM CHIP, 0 OHM 5% 1/10W
ABCDEFGHIJKLMNQRSTUUVWXYz	J0015M	063-11059A	RESISTOR, THICK FILM CHIP, 0 OHM 5% 1/10W
BCJKz	J1406M	063-11059A	RESISTOR, THICK FILM CHIP, 0 OHM 5% 1/10W
BCJKz	J1407M	063-11059A	RESISTOR, THICK FILM CHIP, 0 OHM 5% 1/10W
ABCDEFGHIJKLMNQRSz	J2201M	063-11059A	RESISTOR, THICK FILM CHIP, 0 OHM 5% 1/10W
ABCDEFGHIJKLMNQRSz	J2202M	063-11059A	RESISTOR, THICK FILM CHIP, 0 OHM 5% 1/10W
HTUVWXY	J2501M	063-11059A	RESISTOR, THICK FILM CHIP, 0 OHM 5% 1/10W
HTUVWXY	J2502M	063-11059A	RESISTOR, THICK FILM CHIP, 0 OHM 5% 1/10W
HTUVWXY	J2504M	063-11059A	RESISTOR, THICK FILM CHIP, 0 OHM 5% 1/10W
HTUVWXY	J2510M	063-11059A	RESISTOR, THICK FILM CHIP, 0 OHM 5% 1/10W
HTUVWXY	J2512M	063-11059A	RESISTOR, THICK FILM CHIP, 0 OHM 5% 1/10W
BCDEHJKLMNOTUVWz	J2902M	063-11059A	RESISTOR, THICK FILM CHIP, 0 OHM 5% 1/10W
ABCDEFGHIJKLMNQRSTUUVWXYz	KX3401	195-00161	RELAY, SPST, 12 VDC COIL
ABCDEFGHIJKLMNQRSTUUVWXYz	L1200	020-03907-25A	COIL, 120 MICROHENRY, RCF, FIXED
ABCDEFGHIJKLMNQRSTUUVWXYz	L1201	020-04277-09A	COIL, 0.82 MICROHENRY, RCF, FIXED
ABCDEFGHIJKLMNQRSTUUVWXYz	L1202	020-04278B	COIL, RCF, TUNABLE, 7.0 MM
ABCDEFGHIJKLMNQRSTUUVWXYz	L1203	020-03907-12A	COIL, 10 MICROHENRY, RCF, FIXED
ABCDEFGHIJKLMNQRSTUUVWXYz	L1204	020-04277-39A	COIL, 10 MICROHENRY, RCF, FIXED
ABCDEFGHIJKLMNQRSTUUVWXYz	L1205	020-04277-23A	COIL, 12 MICROHENRY, RCF, FIXED



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# COMPONENT PARTS LIST

## SEE REFERENCE CHART ON PAGE 4-12

RC	REF	PART#	DESCRIPTION
ABCDEFGHIJKLMN	L1206	020-04506A	COIL, RCF, FIXED, SHIELDED
ABCDEFGHIJKLMN	L1207	020-04277-23A	COIL, 12 MICROHENRY, RCF, FIXED
ABCDEFGHIJKLMN	L2201	020-04129-22	COIL, 15 MICROHENRY, RCF, FIXED
ABCDEFGHIJKLMN	L2202	020-04129-16	COIL, 4.7 MICROHENRY, RCF, FIXED
HTUVWXY	L2501	091-02053	WIRE, SOLID, BARE, 22 GA COPPER
HTUVWXY	L2502	020-03907-12A	COIL, 10 MICROHENRY, RCF, FIXED
HTUVWXY	L2503	020-03907-12A	COIL, 10 MICROHENRY, RCF, FIXED
ABCDEFGHIJKLMN	L3405	020-04462-18A	COIL, 33 MICROHENRY, RCF, FIXED
HTUVWXY	L3407	020-03907-21A	COIL, 56 MICROHENRY, RCF, FIXED
ABCDEFGHIJKLMN	L3407	020-03907-24A	COIL, 100 MICROHENRY, RCF, FIXED
ABCDEFGHIJKLMN	L5101	020-03907-28A	COIL, 220 MICROHENRY, RCF, FIXED
ABCDEFGHIJKLMN	L5102	063-10246-46	RESISTOR, FILM, 1.2M OHM 10% 1/2W
ABCDEFGHIJKLMN	L5103	149-00583-01	CORE, FERRITE BEAD
CEGNORSVWY	L6000	020-03907-24A	COIL, 100 MICROHENRY, RCF, FIXED
ABCDEFGHIJKLMN	L6001	020-04129-16	COIL, 4.7 MICROHENRY, RCF, FIXED
FGHIJKLMNOPQ	L6002	020-04277-10A	COIL, 1.0 MICROHENRY, RCF, FIXED
ABCDEJKLMNO	L6002	020-04277-20A	COIL, 6.8 MICROHENRY, RCF, FIXED
ABCDEFGHIJKLMN	L6003	020-04129-08	COIL, 1 MICROHENRY, RCF, FIXED
FGHILMNOPQR	L6004	020-04129-08	COIL, 1 MICROHENRY, RCF, FIXED
FGHILMNOPQR	L6005	020-04129-08	COIL, 1 MICROHENRY, RCF, FIXED
ABCDEJK	L6005	091-02053	WIRE, SOLID, BARE, 22 GA COPPER
ABCDEFGHIJKLMN	L6007	020-04129-16	COIL, 4.7 MICROHENRY, RCF, FIXED
MOQSUWa	LX3201	022-08231-10	CAP, 0.33 MFD 5% 200V, POLYPROPYLENE
ABCDEFGHIJKLMN	LX3202	149-00540-01	CORE, FERRITE
ABCDEFGHIJKLMN	LX3262	020-04073-03	COIL, RCF
ABCDEFGHIJKLMN	LX3401	095-04593	TRANSFORMER, LINE CHOKE
ABCDEFGHIJKLMN	LX3403	149-00540-01	CORE, FERRITE
ABCDEFGHIJKLMN	LX3404	149-00540-01	CORE, FERRITE
ABCDEFGHIJKLMN	LX3410	149-00549	CORE, FERRITE, WITH CAPTIVATED THRU-LEAD
HTUVWXY	PIP	009-02107	MODULE, SINGLE PIP, CA CHASSIS
HTUVWXY	PIPA	058-00605-10	PLUG, MULTIPRONG, 10 POSITION
HTUVWXY	PIPB	058-00605-10	PLUG, MULTIPRONG, 10 POSITION
ABCDEFGHIJKLMN	Q0800	121-01310A	TRANSISTOR, NPN, SILICON
ABCDEFGHIJKLMN	Q1200	121-01261A	TRANSISTOR, NPN, SILICON
ABCDEFGHIJKLMN	Q1201	121-01310A	TRANSISTOR, NPN, SILICON
ABCDEFGHIJKLMN	Q1202	121-01310A	TRANSISTOR, NPN, SILICON
FGIPQRSXYZ	Q1401	121-01310A	TRANSISTOR, NPN, SILICON
FGIPQRSXYZ	Q1402	121-01310A	TRANSISTOR, NPN, SILICON
FGIPQRSXYZ	Q1403	121-01310A	TRANSISTOR, NPN, SILICON
ABCDEFGHIJKLMN	Q2201	121-01311A	TRANSISTOR, PNP, SILICON
ABCDEFGHIJKLMN	Q2202	121-01311A	TRANSISTOR, PNP, SILICON
ABCDEFGHIJKLMN	Q2203	121-01311A	TRANSISTOR, PNP, SILICON
ABCDEFGHIJKLMN	Q2204	121-01310A	TRANSISTOR, NPN, SILICON

RC	REF	PART#	DESCRIPTION
ABCDEFGHIJKLMN	Q2205	121-01311A	TRANSISTOR, PNP, SILICON
ABCDEFGHIJKLMN	Q2206	121-01311A	TRANSISTOR, PNP, SILICON
XY	Q2207	121-01390	TRANSISTOR, NPN, SILICON
ABCDEHJKLMNOTUV	Q2208	121-01311A	TRANSISTOR, PNP, SILICON
ABCDEFGHIJKLMN	Q2209	121-01311A	TRANSISTOR, PNP, SILICON
HTUVWXY	Q2210	121-01391A	TRANSISTOR, PNP, SILICON
HTUVWXY	Q2501	121-01310A	TRANSISTOR, NPN, SILICON
HTUVWXY	Q2502	121-01310A	TRANSISTOR, NPN, SILICON
HTUVWXY	Q2503	121-01310A	TRANSISTOR, NPN, SILICON
HTUVWXY	Q2504	121-01310A	TRANSISTOR, NPN, SILICON
HTUVWXY	Q2505	121-01311A	TRANSISTOR, PNP, SILICON
XY	Q2902	121-01311A	TRANSISTOR, PNP, SILICON
ABCDEFGHIJKLMN	Q3201	121-01310A	TRANSISTOR, NPN, SILICON
ABCDEFGHIJKLMN	Q3202	121-01264-01A	TRANSISTOR, NPN SILICON
ABCDEFGHIJKLMN	Q3402	121-01340A	TRANSISTOR, NPN, SILICON
ABCDEFGHIJKLMN	Q3403	121-01340A	TRANSISTOR, NPN, SILICON
ABCDEFGHIJKLMN	Q3404	121-01102A	TRANSISTOR, PNP, SILICON
ABCDEFGHIJKLMN	Q5101	121-01291-01	TRANSISTOR, NPN, SILICON
ABCDEFGHIJKLMN	Q5102	121-01291-01	TRANSISTOR, NPN, SILICON
ABCDEFGHIJKLMN	Q5103	121-01291-01	TRANSISTOR, NPN, SILICON
ABCDEFGHIJKLMN	Q5104	121-01140A	TRANSISTOR, NPN, SILICON
ABCDEFGHIJKLMN	Q6001	121-01310A	TRANSISTOR, NPN, SILICON
ABCDEFGHIJKLMN	Q6002	121-01310A	TRANSISTOR, NPN, SILICON
XY	Q6003	121-01390	TRANSISTOR, NPN, SILICON
ABCDEFGHIJKLMN	QX3203	121-01383	TRANSISTOR, NPN, SILICON
ABCDEFGHIJKLMN	QX3203	126-03626-01	HEAT SINK, TRANSISTOR, HORIZONTAL OUTPUT
ABCDEFGHIJKLMN	QX3401	121-01348	TRANSISTOR, NPN, SILICON, 80V/1A
ABCDEFGHIJKLMN	R0843	063-10235-60	RESISTOR, FILM, 330 OHM 5% 1/4W
FGIPQRSXYZ	R0851M	063-11059-73A	RESISTOR, THICK FILM CHIP, 10K OHM 5% 1/10W
BCDEHJKLMNOTUV	R0851M	063-11059-89A	RESISTOR, THICK FILM CHIP, 47K OHM 5% 1/10W
BCDEFGHIJKLMN	R0852M	063-11059-57A	RESISTOR, THICK FILM CHIP, 2.2K OHM 5% 1/10W
ABCDEFGHIJKLMN	R0853	063-10235-12	RESISTOR, FILM, 3.3 OHM 5% 1/4W
ABCDEFGHIJKLMN	R0854M	063-11059-29A	RESISTOR, THICK FILM CHIP, 150 OHM 5% 1/10W
FGIPQRSXYZ	R0861M	063-11059-73A	RESISTOR, THICK FILM CHIP, 10K OHM 5% 1/10W
A	R0861M	063-11059-76A	RESISTOR, THICK FILM CHIP, 13K OHM 5% 1/10W
BCDEHJKLMNOTUV	R0861M	063-11059-89A	RESISTOR, THICK FILM CHIP, 47K OHM 5% 1/10W
BCDEFGHIJKLMN	R0862M	063-11059-57A	RESISTOR, THICK FILM CHIP, 2.2K OHM 5% 1/10W
A	R0862M	063-11059-59A	RESISTOR, THICK FILM CHIP, 2.7K OHM 5% 1/10W
ABCDEFGHIJKLMN	R0863	063-10235-12	RESISTOR, FILM, 3.3 OHM 5% 1/4W
ABCDEFGHIJKLMN	R0864M	063-11059-29A	RESISTOR, THICK FILM CHIP, 150 OHM 5% 1/10W
CEGNORSVWY	R1200M	063-11059-97A	RESISTOR, THICK FILM CHIP, 100K OHM 5% 1/10W
ABCDEFGHIJKLMN	R1201M	063-11059-73A	RESISTOR, THICK FILM CHIP, 10K OHM 5% 1/10W
ABCDEFGHIJKLMN	R1202M	063-11059-25A	RESISTOR, THICK FILM CHIP, 100 OHM 5% 1/10W
ABCDEFGHIJKLMN	R1203M	063-11059-39A	RESISTOR, THICK FILM CHIP, 390 OHM 5% 1/10W
ABCDEFGHIJKLMN	R1204M	063-11059-53A	RESISTOR, THICK FILM CHIP, 1.5K OHM 5% 1/10W
ABCDEFGHIJKLMN	R1205M	063-11059-25A	RESISTOR, THICK FILM CHIP, 100 OHM 5% 1/10W



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## COMPONENT PARTS LIST

### SEE REFERENCE CHART ON PAGE 4-12

RC	REF	PART#	DESCRIPTION
ABCDEFGHIJKLMN	R1206M	063-11059-25A	RESISTOR, THICK FILM CHIP, 100 OHM 5% 1/10W
ABCDEFGHIJKLMN	R1207M	063-11059-09A	RESISTOR, THICK FILM CHIP, 22 OHM 5% 1/10W
ABCDEFGHIJKLMN	R1208M	063-11059-09A	RESISTOR, THICK FILM CHIP, 22 OHM 5% 1/10W
ABCDEFGHIJKLMN	R1209M	063-11059-25A	RESISTOR, THICK FILM CHIP, 100 OHM 5% 1/10W
ABCDEFGHIJKLMN	R1210M	063-11059-73A	RESISTOR, THICK FILM CHIP, 10K OHM 5% 1/10W
ABCDEFGHIJKLMN	R1211M	063-11059-73A	RESISTOR, THICK FILM CHIP, 10K OHM 5% 1/10W
ABCDEFGHIJKLMN	R1212M	063-11059-61A	RESISTOR, THICK FILM CHIP, 3.3K OHM 5% 1/10W
ABCDEFGHIJKLMN	R1213M	063-11059-46A	RESISTOR, THICK FILM CHIP, 750 OHM 5% 1/10W
ABCDEFGHIJKLMN	R1214M	063-11059-49A	RESISTOR, THICK FILM CHIP, 1K OHM 5% 1/10W
ABCDEFGHIJKLMN	R1215M	063-11059-65A	RESISTOR, THICK FILM CHIP, 4.7K OHM 5% 1/10W
ABCDEFGHIJKLMN	R1216M	063-11059-73A	RESISTOR, THICK FILM CHIP, 10K OHM 5% 1/10W
ABCDEFGHIJKLMN	R1217M	063-11059-49A	RESISTOR, THICK FILM CHIP, 1K OHM 5% 1/10W
ABCDEFGHIJKLMN	R1218M	063-11059-33A	RESISTOR, THICK FILM CHIP, 220 OHM 5% 1/10W
ABCDEFGHIJKLMN	R1219M	063-11059-29A	RESISTOR, THICK FILM CHIP, 150 OHM 5% 1/10W
ABCDEFGHIJKLMN	R1220M	063-11059-29A	RESISTOR, THICK FILM CHIP, 150 OHM 5% 1/10W
ABCDEFGHIJKLMN	R1221M	063-11059-33A	RESISTOR, THICK FILM CHIP, 220 OHM 5% 1/10W
ABCDEFGHIJKLMN	R1222M	063-11059-49A	RESISTOR, THICK FILM CHIP, 1K OHM 5% 1/10W
ABCDEFGHIJKLMN	R1223M	063-11059-97A	RESISTOR, THICK FILM CHIP, 100K OHM 5% 1/10W
ABCDEFGHIJKLMN	R1224M	063-11059-87A	RESISTOR, THICK FILM CHIP, 39K OHM 5% 1/10W
ABDFHIJLMPTUXZa	R1225	063-10235-98	RESISTOR, FILM, 12K OHM 5% 1/4W
BCDEFGHIJKLMN	R1401	063-10235-48	RESISTOR, FILM, 100 OHM 5% 1/4W
BCDEFGHIJKLMN	R1402	063-10235-48	RESISTOR, FILM, 100 OHM 5% 1/4W
BCDEFGHIJKLMN	R1404M	063-11244-76A	RESISTOR, THICK FILM CHIP, 61.9K OHM 1% 1/10W
BCDEFGHIJKLMN	R1405M	063-11059-61A	RESISTOR, THICK FILM CHIP, 3.3K OHM 5% 1/10W
BCDEFGHIJKLMN	R1406M	063-11059-97A	RESISTOR, THICK FILM CHIP, 100K OHM 5% 1/10W
BCDEFGHIJKLMN	R1407M	063-11059-60A	RESISTOR, THICK FILM CHIP, 3K OHM 5% 1/10W
BCDEFGHIJKLMN	R1408M	063-11059-61A	RESISTOR, THICK FILM CHIP, 3.3K OHM 5% 1/10W
FGIPQRSXYZ	R1409M	063-11060-21A	RESISTOR, THICK FILM CHIP, 1 MEG OHM 5% 1/10W
DEHLMN	R1412	063-10235-74	RESISTOR, FILM, 1.2K OHM 5% 1/4W
FGIPQRSXYZ	R1412	063-10235-80	RESISTOR, FILM, 2.2K OHM 5% 1/4W
DEHLMN	R1413	063-10235-74	RESISTOR, FILM, 1.2K OHM 5% 1/4W
FGIPQRSXYZ	R1413	063-10235-80	RESISTOR, FILM, 2.2K OHM 5% 1/4W
DEHLMN	R1416	063-10235-94	RESISTOR, FILM, 8.2K OHM 5% 1/4W
BCDEHJKLMN	R1417	063-10243-56	RESISTOR, FILM, 220 OHM 5% 1/2W
BCDEHJKLMN	R1418M	063-11059-57A	RESISTOR, THICK FILM CHIP, 2.2K OHM 5% 1/10W

RC	REF	PART#	DESCRIPTION
BCDEHJKLMN	R1420M	063-11059-73A	RESISTOR, THICK FILM CHIP, 10K OHM 5% 1/10W
BCDEFGHIJKLMN	R1421M	063-11059-71A	RESISTOR, THICK FILM CHIP, 8.2K OHM 5% 1/10W
BCDEFGHIJKLMN	R1422M	063-11059-73A	RESISTOR, THICK FILM CHIP, 10K OHM 5% 1/10W
BCDEFGHIJKLMN	R1425M	063-11060-21A	RESISTOR, THICK FILM CHIP, 1 MEG OHM 5% 1/10W
FGIPQRSXYZ	R1440M	063-11059-73A	RESISTOR, THICK FILM CHIP, 10K OHM 5% 1/10W
FGIPQRSXYZ	R1441M	063-11059-97A	RESISTOR, THICK FILM CHIP, 100K OHM 5% 1/10W
FGIPQRSXYZ	R1442M	063-11059-49A	RESISTOR, THICK FILM CHIP, 1K OHM 5% 1/10W
FGIPQRSXYZ	R1443M	063-11059-41A	RESISTOR, THICK FILM CHIP, 470 OHM 5% 1/10W
FGIPQRSXYZ	R1444M	063-11059-25A	RESISTOR, THICK FILM CHIP, 100 OHM 5% 1/10W
FGIPQRSXYZ	R1445M	063-11059-37A	RESISTOR, THICK FILM CHIP, 330 OHM 5% 1/10W
FGIPQRSXYZ	R1446	063-10235-68	RESISTOR, FILM, 680 OHM 5% 1/4W
FGIPQRSXYZ	R1447M	063-11059-49A	RESISTOR, THICK FILM CHIP, 1K OHM 5% 1/10W
FGIPQRSXYZ	R1448M	063-11059-41A	RESISTOR, THICK FILM CHIP, 470 OHM 5% 1/10W
FGIPQRSXYZ	R1449M	063-11059-25A	RESISTOR, THICK FILM CHIP, 100 OHM 5% 1/10W
FGIPQRSXYZ	R1450M	063-11059-37A	RESISTOR, THICK FILM CHIP, 330 OHM 5% 1/10W
FGIPQRSXYZ	R1451	063-10235-68	RESISTOR, FILM, 680 OHM 5% 1/4W
ABCDEFGHIJKLMN	R2101	063-10235-72	RESISTOR, FILM, 1K OHM 5% 1/4W
ABCDEFGHIJKLMN	R2102M	063-11059-73A	RESISTOR, THICK FILM CHIP, 10K OHM 5% 1/10W
ABCDEFGHIJKLMN	R2103	063-10235-96	RESISTOR, FILM, 10K OHM 5% 1/4W
ABCDEFGHIJKLMN	R2104	063-10236-26	RESISTOR, FILM, 180K OHM 5% 1/4W
ABCDEFGHIJKLMN	R2105	063-10236-24	RESISTOR, FILM, 150K OHM 5% 1/4W
ABCDEFGHIJKLMN	R2106	063-10236-41	RESISTOR, FILM, 750K OHM 5% 1/4W
ABCDEFGHIJKLMN	R2107M	063-11059-89A	RESISTOR, THICK FILM CHIP, 47K OHM 5% 1/10W
ABCDEFGHIJKLMN	R2108	063-10236-10	RESISTOR, FILM, 39K OHM 5% 1/4W
ABCDEFGHIJKLMN	R2109M	063-11059-77A	RESISTOR, THICK FILM CHIP, 15K OHM 5% 1/10W
ABCDEFGHIJKLMN	R2110M	063-11059-77A	RESISTOR, THICK FILM CHIP, 15K OHM 5% 1/10W
ABCDEFGHIJKLMN	R2111M	063-11059-89A	RESISTOR, THICK FILM CHIP, 47K OHM 5% 1/10W
ABCDEFGHIJKLMN	R2112M	063-11059-49A	RESISTOR, THICK FILM CHIP, 1K OHM 5% 1/10W
ABCDEFGHI	R2113	063-10235-84	RESISTOR, FILM, 3.3K OHM 5% 1/4 W
JKLMNOPQRSTU	R2113	063-10235-86	RESISTOR, FILM, 3.9K OHM 5% 1/4W
ABCDEFGHIJKLMN	R2114	063-10235-90	RESISTOR, FILM, 5.6K OHM 5% 1/4W
XY	R2114	063-10235-92	RESISTOR, FILM, 6.8K OHM 5% 1/4W
ABCDEFGHIJKLMN	R2118	063-10565-61	RESISTOR, FILM, 360 OHM 5% 1/2W
ABCDEFGHIJKLMN	R2119	063-10565-61	RESISTOR, FILM, 360 OHM 5% 1/2W
ABCDEFGHIJKLMN	R2120M	063-11059-39A	RESISTOR, THICK FILM CHIP, 390 OHM 5% 1/10W



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# COMPONENT PARTS LIST

## SEE REFERENCE CHART ON PAGE 4-12

RC	REF	PART#	DESCRIPTION
ABCDEFGHIJKLMN	R2121	063-10235-94	RESISTOR, FILM, 8.2K OHM 5% 1/4W
ABCDEFGHIJKLMN	R2122	063-10235-88	RESISTOR, FILM, 4.7K OHM 5% 1/4W
ABCDEFGHIJKLMN	R2123M	063-11059-33A	RESISTOR, THICK FILM CHIP, 220 OHM 5% 1/10W
XY	R2201M	063-11059-27A	RESISTOR, THICK FILM CHIP, 120 OHM 5% 1/10W
ABCDEFGHIJKLMN	R2201M	063-11059A	RESISTOR, THICK FILM CHIP, 0 OHM 5% 1/10W
ABCDEFGHIJKLMN	R2202M	063-11059-47A	RESISTOR, THICK FILM CHIP, 820 OHM 5% 1/10W
a	R2202M	063-11059A	RESISTOR/ THICK FILM CHIP/ 0 OHM 5% 1/10W
ABCDEFGHIJKLMN	R2203M	063-11059-60A	RESISTOR, THICK FILM CHIP, 3K OHM 5% 1/10W
XY	R2203M	063-11059-61A	RESISTOR, THICK FILM CHIP, 3.3K OHM 5% 1/10W
ABCDEFGHIJKLMN	R2204M	063-11059-49A	RESISTOR, THICK FILM CHIP, 1K OHM 5% 1/10W
ABCDEFGHIJKLMN	R2205M	063-11059-60A	RESISTOR, THICK FILM CHIP, 3K OHM 5% 1/10W
ABCDEFGHIJKLMN	R2206M	063-11059-49A	RESISTOR, THICK FILM CHIP, 1K OHM 5% 1/10W
ABCDEFGHIJKLMN	R2207M	063-11059-60A	RESISTOR, THICK FILM CHIP, 3K OHM 5% 1/10W
XY	R2207M	063-11059-61A	RESISTOR, THICK FILM CHIP, 3.3K OHM 5% 1/10W
ABCDEFGHIJKLMN	R2208M	063-11059-49A	RESISTOR, THICK FILM CHIP, 1K OHM 5% 1/10W
ABCDEFGHIJKLMN	R2209M	063-11059-47A	RESISTOR, THICK FILM CHIP, 820 OHM 5% 1/10W
ABCDEFGHIJKLMN	R2210M	063-10235-66	RESISTOR, FILM, 560 OHM 5% 1/4W
JKLMN	R2211M	063-11059-49A	RESISTOR, THICK FILM CHIP, 1K OHM 5% 1/10W
ABCDEFGHIXY	R2211M	063-11059-53A	RESISTOR, THICK FILM CHIP, 1.5K OHM 5% 1/10W
ABCDEFGHIJKLMN	R2212M	063-11059-25A	RESISTOR, THICK FILM CHIP, 100 OHM 5% 1/10W
ABCDEFGHIJKLMN	R2213M	063-11059-33A	RESISTOR, THICK FILM CHIP, 220 OHM 5% 1/10W
ABCDEFGHIJKLMN	R2214M	063-11059-83A	RESISTOR, THICK FILM CHIP, 27K OHM 5% 1/10W
ABCDEFGHIJKLMN	R2215M	063-11059-47A	RESISTOR, THICK FILM CHIP, 820 OHM 5% 1/10W
ABCDEFGHIJKLMN	R2216	063-10235-24	RESISTOR, FILM, 10 OHM 5% 1/4W
JKLMN	R2217M	063-11059-49A	RESISTOR, THICK FILM CHIP, 1K OHM 5% 1/10W
ABCDEFGHIXY	R2217M	063-11059-53A	RESISTOR, THICK FILM CHIP, 1.5K OHM 5% 1/10W
ABCDEFGHIJKLMN	R2218M	063-11059-33A	RESISTOR, THICK FILM CHIP, 220 OHM 5% 1/10W
ABCDEFGHIJKLMN	R2219M	063-11059-47A	RESISTOR, THICK FILM CHIP, 820 OHM 5% 1/10W
ABCDEFGHIJKLMN	R2220	063-10235-48	RESISTOR, FILM, 100 OHM 5% 1/4W
JKLMN	R2221M	063-11059-49A	RESISTOR, THICK FILM CHIP, 1K OHM 5% 1/10W
ABCDEFGHIXY	R2221M	063-11059-53A	RESISTOR, THICK FILM CHIP, 1.5K OHM 5% 1/10W
ABCDEFGHIJKLMN	R2222M	063-11059-33A	RESISTOR, THICK FILM CHIP, 220 OHM 5% 1/10W
ABCDEFGHIJKLMN	R2223	063-10235-48	RESISTOR, FILM, 100 OHM 5% 1/4W
ABCDEFGHIJKLMN	R2224M	063-11059-77A	RESISTOR, THICK FILM CHIP, 15K OHM 5% 1/10W
ABCDEFGHIJKLMN	R2225M	063-11059-61A	RESISTOR, THICK FILM CHIP, 3.3K OHM 5% 1/10W

RC	REF	PART#	DESCRIPTION
ABCDEFGHIJKLMN	R2226	063-10235-88	RESISTOR, FILM, 4.7K OHM 5% 1/4W
ABCDEFGHIJKLMN	R2227M	063-11059-49A	RESISTOR, THICK FILM CHIP, 1K OHM 5% 1/10W
ABCDEFGHIJKLMN	R2228	063-10235-64	RESISTOR, FILM, 470 OHM 5% 1/4W
ABCDEFGHIJKLMN	R2229M	063-11059-57A	RESISTOR, THICK FILM CHIP, 2.2K OHM 5% 1/10W
ABCDEFGHIJKLMN	R2230M	063-11059-97A	RESISTOR, THICK FILM CHIP, 100K OHM 5% 1/10W
ABCDEFGHIJKLMN	R2231M	063-11059-39A	RESISTOR, THICK FILM CHIP, 390 OHM 5% 1/10W
ABCDEFGHI	R2232M	063-11059-49A	RESISTOR, THICK FILM CHIP, 1K OHM 5% 1/10W
JKLMN	R2232M	063-11059-53A	RESISTOR, THICK FILM CHIP, 1.5K OHM 5% 1/10W
ABCDEFGHIJKLMN	R2233	063-10235-48	RESISTOR, FILM, 100 OHM 5% 1/4W
ABCDEFGHIJKLMN	R2234M	063-11059-73A	RESISTOR, THICK FILM CHIP, 10K OHM 5% 1/10W
JKLMN	R2235	063-10243-74	RESISTOR, FILM, 1.2K OHM 5% 1/2W
ABCDEFGHI	R2235	063-10243-79	RESISTOR, FILM, 2K OHM 5% 1/2W
ABCDEFGHIJKLMN	R2236M	063-11059-73A	RESISTOR, THICK FILM CHIP, 10K OHM 5% 1/10W
ABCDEFGHIJKLMN	R2237M	063-11059-49A	RESISTOR, THICK FILM CHIP, 1K OHM 5% 1/10W
ABCDEFGHIJKLMN	R2238M	063-11059-53A	RESISTOR, THICK FILM CHIP, 1.5K OHM 5% 1/10W
ABCDEFGHIJKLMN	R2239M	063-11059-49A	RESISTOR, THICK FILM CHIP, 1K OHM 5% 1/10W
ABCDEFGHIJKLMN	R2240M	063-11059-46A	RESISTOR, THICK FILM CHIP, 750 OHM 5% 1/10W
ABCDEFGHIJKLMN	R2241M	063-11059-73A	RESISTOR, THICK FILM CHIP, 10K OHM 5% 1/10W
ABCDEFGHIJKLMN	R2242M	063-11060-13A	RESISTOR, THICK FILM CHIP, 470K OHM 5% 1/10W
ABCDEFGHIJKLMN	R2243M	063-11059-49A	RESISTOR, THICK FILM CHIP, 1K OHM 5% 1/10W
ABCDEFGHIJKLMN	R2244M	063-11059-97A	RESISTOR, THICK FILM CHIP, 100K OHM 5% 1/10W
ABCDEFGHIJKLMN	R2245M	063-11059-17A	RESISTOR, THICK FILM CHIP, 47 OHM 5% 1/10W
FGIPQRSXYZ	R2246M	063-11059-83A	RESISTOR, THICK FILM CHIP, 27K OHM 5% 1/10W
ABCDEFGHIJKLMN	R2247M	063-11059-25A	RESISTOR, THICK FILM CHIP, 100 OHM 5% 1/10W
FGIPQRSXYZ	R2248M	063-11059-73A	RESISTOR, THICK FILM CHIP, 10K OHM 5% 1/10W
ABCDEFGHIJKLMN	R2249M	063-11059-29A	RESISTOR, THICK FILM CHIP, 150 OHM 5% 1/10W
ABCDEFGHIJKLMN	R2250M	063-11059-29A	RESISTOR, THICK FILM CHIP, 150 OHM 5% 1/10W
ABCDEFGHIJKLMN	R2251	063-10235-48	RESISTOR, FILM, 100 OHM 5% 1/4W
ABCDEFGHIJKLMN	R2252M	063-11059-87A	RESISTOR, THICK FILM CHIP, 39K OHM 5% 1/10W
ABCDEFGHIJKLMN	R2254M	063-11059-25A	RESISTOR, THICK FILM CHIP, 100 OHM 5% 1/10W
XY	R2255	063-10235-60	RESISTOR, FILM, 330 OHM 5% 1/4W
XY	R2256M	063-11059-33A	RESISTOR, THICK FILM CHIP, 220 OHM 5% 1/10W
XY	R2257M	063-11059-33A	RESISTOR, THICK FILM CHIP, 220 OHM 5% 1/10W
XY	R2258M	063-11059-33A	RESISTOR, THICK FILM CHIP, 220 OHM 5% 1/10W
ABCDEFGHIJKLMN	R2259M	063-11059-39A	RESISTOR, THICK FILM CHIP, 390 OHM 5% 1/10W



Critical safety components are identified by the letter "X" in their component designators and are shaded. Replace only with part numbers specified.

## COMPONENT PARTS LIST

### SEE REFERENCE CHART ON PAGE 4-12

RC	REF	PART#	DESCRIPTION
ABCDEFGHIJKLMNOTUVW	R2260M	063-11059-25A	RESISTOR, THICK FILM CHIP, 100 OHM 5% 1/10W
ABCDEFGHIJKLMNOTUVW	R2261M	063-11059-29A	RESISTOR, THICK FILM CHIP, 150 OHM 5% 1/10W
ABCDEFGHIJKLMNOTUVW	R2262M	063-11059-29A	RESISTOR, THICK FILM CHIP, 150 OHM 5% 1/10W
ABCDEFGHIJKLMNQRSTUWVXYZa	R2263	063-10236-32	RESISTOR, FILM, 330K OHM 5% 1/4W
ABCDEFGHIJKLMNQRSTUWVXYZa	R2264	063-10236-44	RESISTOR, FILM, 1M OHM 5% 1/4W
ABCDEFGHIJKLMNQRSTUWVXYZa	R2265M	063-11059-73A	RESISTOR, THICK FILM CHIP, 10K OHM 5% 1/10W
	R2265M	063-11059-73A	RESISTOR/ THICK FILM CHIP/ 10K OHM 5% 1/10W
HTUVWXY	R2266	063-10235-64	RESISTOR, FILM, 470 OHM 5% 1/4W
HTUVWXY	R2267M	063-11059-83A	RESISTOR, THICK FILM CHIP, 27K OHM 5% 1/10W
HTUVWXY	R2268M	063-11059-97A	RESISTOR, THICK FILM CHIP, 100K OHM 5% 1/10W
ABCDEJLMNOa	R2269M	063-11059-09A	RESISTOR, THICK FILM CHIP, 22 OHM 5% 1/10W
FGHIPQRSTUWVZ	R2269M	063-11059-73A	RESISTOR, THICK FILM CHIP, 10K OHM 5% 1/10W
HTUVWXY	R2501M	063-11059-49A	RESISTOR, THICK FILM CHIP, 1K OHM 5% 1/10W
HTUVWXY	R2502M	063-11059-65A	RESISTOR, THICK FILM CHIP, 4.7K OHM 5% 1/10W
HTUVWXY	R2504M	063-11059-49A	RESISTOR, THICK FILM CHIP, 1K OHM 5% 1/10W
HTUVWXY	R2505M	063-11059-35A	RESISTOR, THICK FILM CHIP, 270 OHM 5% 1/10W
HTUVWXY	R2507M	063-11059-25A	RESISTOR, THICK FILM CHIP, 100 OHM 5% 1/10W
HTUVWXY	R2508M	063-11059-77A	RESISTOR, THICK FILM CHIP, 15K OHM 5% 1/10W
HTUVWXY	R2509M	063-11060-61A	RESISTOR, THICK FILM CHIP, 4.7M OHM 5% 1/10W
HTUVWXY	R2510M	063-11059-37A	RESISTOR, THICK FILM CHIP, 330 OHM 5% 1/10W
HTUVWXY	R2511M	063-11059-65A	RESISTOR, THICK FILM CHIP, 4.7K OHM 5% 1/10W
HTUVWXY	R2512M	063-11059-37A	RESISTOR, THICK FILM CHIP, 330 OHM 5% 1/10W
HTUVWXY	R2513M	063-11059-73A	RESISTOR, THICK FILM CHIP, 10K OHM 5% 1/10W
HTUVWXY	R2516M	063-11059-41A	RESISTOR, THICK FILM CHIP, 470 OHM 5% 1/10W
HTUVWXY	R2517M	063-11059-41A	RESISTOR, THICK FILM CHIP, 470 OHM 5% 1/10W
HTUVWXY	R2518M	063-11059-41A	RESISTOR, THICK FILM CHIP, 470 OHM 5% 1/10W
HTUVWXY	R2519M	063-11059-65A	RESISTOR, THICK FILM CHIP, 4.7K OHM 5% 1/10W
HTUVWXY	R2520	063-10235-72	RESISTOR, FILM, 1K OHM 5% 1/4W
HTUVWXY	R2521M	063-11059-37A	RESISTOR, THICK FILM CHIP, 330 OHM 5% 1/10W
HTUVWXY	R2523M	063-11059-57A	RESISTOR, THICK FILM CHIP, 2.2K OHM 5% 1/10W
HTUVWXY	R2524M	063-11059-49A	RESISTOR, THICK FILM CHIP, 1K OHM 5% 1/10W
HTUVWXY	R2525M	063-11059-33A	RESISTOR, THICK FILM CHIP, 220 OHM 5% 1/10W
HTUVWXY	R2529	063-10235-64	RESISTOR, FILM, 470 OHM 5% 1/4W
HTUVWXY	R2530M	063-11059-84A	RESISTOR, THICK FILM CHIP, 30K OHM 5% 1/10W
HTUVWXY	R2531M	063-11060-04A	RESISTOR, THICK FILM CHIP, 200K OHM 5% 1/10W

RC	REF	PART#	DESCRIPTION
HTUVWXY	R2532M	063-11059-51A	RESISTOR, THICK FILM CHIP, 1.2K OHM 5% 1/10W
HTUVWXY	R2533M	063-11059-59A	RESISTOR, THICK FILM CHIP, 2.7K OHM 5% 1/10W
HTUVWXY	R2534	063-10235-48	RESISTOR, FILM, 100 OHM 5% 1/4W
HTUVWXY	R2535	063-10235-48	RESISTOR, FILM, 100 OHM 5% 1/4W
HTUVWXY	R2539M	063-11059-73A	RESISTOR, THICK FILM CHIP, 10K OHM 5% 1/10W
HTUVWXY	R2540M	063-11059-73A	RESISTOR, THICK FILM CHIP, 10K OHM 5% 1/10W
HTUVWXY	R2541M	063-11059-73A	RESISTOR, THICK FILM CHIP, 10K OHM 5% 1/10W
HTUVWXY	R2542M	063-11059-73A	RESISTOR, THICK FILM CHIP, 10K OHM 5% 1/10W
HTUVWXY	R2543M	063-11059-73A	RESISTOR, THICK FILM CHIP, 10K OHM 5% 1/10W
HTUVWXY	R2544M	063-11059-73A	RESISTOR, THICK FILM CHIP, 10K OHM 5% 1/10W
HTUVWXY	R2545	063-10235-96	RESISTOR, FILM, 10K OHM 5% 1/4W
HTUVWXY	R2546M	063-11059-75A	RESISTOR, THICK FILM CHIP, 12K OHM 5% 1/10W
HTUVWXY	R2547M	063-11059A	RESISTOR, THICK FILM CHIP, 0 OHM 5% 1/10W
HTUVWXY	R2549	063-10565-12	RESISTOR, FILM, 3.3 OHM 5% 1/2W
FGHIPQRSTUWVXYZ	R2901M	063-11059-71A	RESISTOR, THICK FILM CHIP, 8.2K OHM 5% 1/10W
FGHIPQRSTUWVXYZ	R2902M	063-11059-57A	RESISTOR, THICK FILM CHIP, 2.2K OHM 5% 1/10W
FGIPQRSXYZ	R2907	063-10235-72	RESISTOR, FILM, 1K OHM 5% 1/4W
FGIPQRSXYZ	R2908	063-10235-40	RESISTOR, FILM, 47 OHM 5% 1/4W
FGIPQRSXYZ	R2909	063-10235-83	RESISTOR, FILM, 3K OHM 5% 1/4W
FGIPQRSXYZ	R2910M	063-11059-73A	RESISTOR, THICK FILM CHIP, 10K OHM 5% 1/10W
FGIPQRSXYZ	R2911	063-10235-45	RESISTOR, FILM, 75 OHM 5% 1/4W
FGIPQRSXYZ	R2912	063-10235-45	RESISTOR, FILM, 75 OHM 5% 1/4W
DEFGHILMNOPQRSTUWVXYZ	R2914	063-10235-40	RESISTOR, FILM, 47 OHM 5% 1/4W
HTUVWXY	R2915M	063-11059-71A	RESISTOR, THICK FILM CHIP, 8.2K OHM 5% 1/10W
DEFGHILMNOPQRSTUWVXYZ	R2916	063-10235-45	RESISTOR, FILM, 75 OHM 5% 1/4W
HTUVW	R2917M	063-11059-60A	RESISTOR, THICK FILM CHIP, 3K OHM 5% 1/10W
XY	R2917M	063-11059-61A	RESISTOR, THICK FILM CHIP, 3.3K OHM 5% 1/10W
XY	R2918M	063-11059-60A	RESISTOR, THICK FILM CHIP, 3K OHM 5% 1/10W
XY	R2919M	063-11059-41A	RESISTOR, THICK FILM CHIP, 470 OHM 5% 1/10W
XY	R2920M	063-11059-49A	RESISTOR, THICK FILM CHIP, 1K OHM 5% 1/10W
XY	R2921M	063-11059-49A	RESISTOR, THICK FILM CHIP, 1K OHM 5% 1/10W
XY	R2922M	063-11059-73A	RESISTOR, THICK FILM CHIP, 10K OHM 5% 1/10W
XY	R2923M	063-11059-51A	RESISTOR, THICK FILM CHIP, 1.2K OHM 5% 1/10W
ABCDEFGHIJKLMNQRSTUWVXYZa	R3201M	063-11059-65A	RESISTOR, THICK FILM CHIP, 4.7K OHM 5% 1/10W
ABCDEFGHIJKLMNQRSTUWVXYZa	R3202M	063-11059-29A	RESISTOR, THICK FILM CHIP, 150 OHM 5% 1/10W



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## COMPONENT PARTS LIST

# SEE REFERENCE CHART ON PAGE 4-12

RC	REF	PART#	DESCRIPTION
ABCDEFGHIJKLMN	R3203	063-11087-64	RESISTOR, FILM, 470 OHM 5% 1/2W
ABCDEFGHIJKLMN	R3204	063-11087-66	RESISTOR, FILM, 560 OHM 5% 1/2W
ABCDEFGHIJKLMN	R3205	063-11087-66	RESISTOR, FILM, 560 OHM 5% 1/2W
ABCDEFGHIJKLMN	R3412M	063-11059-73A	RESISTOR, THICK FILM CHIP, 10K OHM 5% 1/10W
ABCDEFGHIJKLMN	R3414	063-10235-80	RESISTOR, FILM, 2.2K OHM 5% 1/4W
ABCDEFGHIJKLMN	R3418	063-10235-88	RESISTOR, FILM, 4.7K OHM 5% 1/4W
ABCDEFGHIJKLMN	R3419	063-10235-88	RESISTOR, FILM, 4.7K OHM 5% 1/4W
ABCDEFGHIJKLMN	R3440	063-10243-48	RESISTOR, FILM, 100 OHM 5% 1/2W
ABCDEFGHIJKLMN	R5101M	063-11059-49A	RESISTOR, THICK FILM CHIP, 1K OHM 5% 1/10W
ABCDEFGHIJKLMN	R5102M	063-11059-17A	RESISTOR, THICK FILM CHIP, 47 OHM 5% 1/10W
ABCDEFGHIJKLMN	R5103	063-10244-22	RESISTOR, FILM, 120K OHM 5% 1/2W
ABCDEFGHIJKLMN	R5105M	063-11059-27A	RESISTOR, THICK FILM CHIP, 120 OHM 5% 1/10W
ABCDEFGHIJKLMN	R5106M	063-11059-17A	RESISTOR, THICK FILM CHIP, 47 OHM 5% 1/10W
ABCDEFGHIJKLMN	R5107	063-10243-72	RESISTOR, FILM, 1K OHM 5% 1/2W
ABCDEFGHIJKLMN	R5108M	063-11059-49A	RESISTOR, THICK FILM CHIP, 1K OHM 5% 1/10W
ABCDEFGHIJKLMN	R5109M	063-11059-17A	RESISTOR, THICK FILM CHIP, 47 OHM 5% 1/10W
ABCDEFGHIJKLMN	R5110	063-10244-22	RESISTOR, FILM, 120K OHM 5% 1/2W
ABCDEFGHIJKLMN	R5112M	063-11059-27A	RESISTOR, THICK FILM CHIP, 120 OHM 5% 1/10W
ABCDEFGHIJKLMN	R5113M	063-11059-17A	RESISTOR, THICK FILM CHIP, 47 OHM 5% 1/10W
ABCDEFGHIJKLMN	R5114	063-10235-64	RESISTOR, FILM, 470 OHM 5% 1/4W
ABCDEFGHIJKLMN	R5115	063-10243-72	RESISTOR, FILM, 1K OHM 5% 1/2W
ABCDEFGHIJKLMN	R5116	063-10243-72	RESISTOR, FILM, 1K OHM 5% 1/2W
ABCDEFGHIJKLMN	R5117M	063-11059-49A	RESISTOR, THICK FILM CHIP, 1K OHM 5% 1/10W
ABCDEFGHIJKLMN	R5118M	063-11059-17A	RESISTOR, THICK FILM CHIP, 47 OHM 5% 1/10W
ABCDEFGHIJKLMN	R5119	063-10244-22	RESISTOR, FILM, 120K OHM 5% 1/2W
ABCDEFGHIJKLMN	R5120M	063-11059-27A	RESISTOR, THICK FILM CHIP, 120 OHM 5% 1/10W
ABCDEFGHIJKLMN	R5121M	063-11059-17A	RESISTOR, THICK FILM CHIP, 47 OHM 5% 1/10W
ABCDEFGHIJKLMN	R5123	063-10243-72	RESISTOR, FILM, 1K OHM 5% 1/2W
ABCDEFGHIJKLMN	R5124M	063-11059-71A	RESISTOR, THICK FILM CHIP, 8.2K OHM 5% 1/10W
ABCDEFGHIJKLMN	R5125	063-10235-72	RESISTOR, FILM, 1K OHM 5% 1/4W
ABCDEFGHIJKLMN	R5126	063-10244-28	RESISTOR, FILM, 220K OHM 5% 1/2W
ABCDEFGHIJKLMN	R5127	063-10243-72	RESISTOR, FILM, 1K OHM 5% 1/2W
ABCDEFGHIJKLMN	R6001M	063-11059-65A	RESISTOR, THICK FILM CHIP, 4.7K OHM 5% 1/10W
ABCDEFGHIJKLMN	R6002M	063-11059-33A	RESISTOR, THICK FILM CHIP, 220 OHM 5% 1/10W
ABCDEFGHIJKLMN	R6003M	063-11059-73A	RESISTOR, THICK FILM CHIP, 10K OHM 5% 1/10W

RC	REF	PART#	DESCRIPTION
ABCDEFGHIJKLMN	R6004M	063-11059-89A	RESISTOR, THICK FILM CHIP, 47K OHM 5% 1/10W
ABCDEFGHIJKLMN	R6005M	063-11059-65A	RESISTOR, THICK FILM CHIP, 4.7K OHM 5% 1/10W
ABCDEFGHIJKLMN	R6006M	063-11059-29A	RESISTOR, THICK FILM CHIP, 150 OHM 5% 1/10W
ABCDEFGHIJKLMN	R6008M	063-11059-73A	RESISTOR, THICK FILM CHIP, 10K OHM 5% 1/10W
ABCDEFGHIJKLMN	R6012	063-10236-12	RESISTOR, FILM, 47K OHM 5% 1/4W
ABCDEFGHIJKLMN	R6015	063-10235-72	RESISTOR, FILM, 1K OHM 5% 1/4W
ABCDEFGHIJKLMN	R6016	063-10235-72	RESISTOR, FILM, 1K OHM 5% 1/4W
ABCDEJKa	R6017M	063-11059-73A	RESISTOR, THICK FILM CHIP, 10K OHM 5% 1/10W
ABCDEJKa	R6018	063-10235-96	RESISTOR, FILM, 10K OHM 5% 1/4W
ABCDEJKa	R6019M	063-11059-49A	RESISTOR, THICK FILM CHIP, 1K OHM 5% 1/10W
ABCDEJKa	R6020M	063-11059-56A	RESISTOR, THICK FILM CHIP, 2K OHM 5% 1/10W
a	R6021	063-10235-72	RESISTOR/ FILM/ 1K OHM 5% 1/4W
ABCDEJK	R6021M	063-11059-49A	RESISTOR, THICK FILM CHIP, 1K OHM 5% 1/10W
ABCDEJKa	R6022M	063-11059-49A	RESISTOR, THICK FILM CHIP, 1K OHM 5% 1/10W
ABCDEJKa	R6023M	063-11059-49A	RESISTOR, THICK FILM CHIP, 1K OHM 5% 1/10W
ABCDEJKa	R6024M	063-11059-56A	RESISTOR, THICK FILM CHIP, 2K OHM 5% 1/10W
ABCDEJKa	R6025M	063-11059-56A	RESISTOR, THICK FILM CHIP, 2K OHM 5% 1/10W
ABCDEFGHIJKLMN	R6026	063-10235-96	RESISTOR, FILM, 10K OHM 5% 1/4W
ABCDEFGHIJKLMN	R6027	063-10235-80	RESISTOR, FILM, 2.2K OHM 5% 1/4W
ABCDEJKa	R6028	063-10235-60	RESISTOR, FILM, 330 OHM 5% 1/4W
ABCDEJKa	R6029M	063-11059-73A	RESISTOR, THICK FILM CHIP, 10K OHM 5% 1/10W
ABCDEFGHIJKLMN	R6030	091-02053	WIRE, SOLID, BARE, 22 GA COPPER
ABCDEFGHIJKLMN	R6031M	063-11059-49A	RESISTOR, THICK FILM CHIP, 1K OHM 5% 1/10W
ABCDEFGHIJKLMN	R6032M	063-11059-77A	RESISTOR, THICK FILM CHIP, 15K OHM 5% 1/10W
ABCDEFGHIJKLMN	R6033M	063-11059A	RESISTOR, THICK FILM CHIP, 0 OHM 5% 1/10W
ABCDEFGHIJKLMN	R6034M	063-11060-21A	RESISTOR, THICK FILM CHIP, 1 MEG OHM 5% 1/10W
ABCDEFGHIJKLMN	R6035M	063-11060-21A	RESISTOR, THICK FILM CHIP, 1 MEG OHM 5% 1/10W
ABCDEFGHIJKLMN	R6036M	063-11059A	RESISTOR, THICK FILM CHIP, 0 OHM 5% 1/10W
ABCDEFGHIJKLMN	R6037M	063-11059-83A	RESISTOR, THICK FILM CHIP, 27K OHM 5% 1/10W
ABCDEFGHIJKLMN	R6039M	063-11059-33A	RESISTOR, THICK FILM CHIP, 220 OHM 5% 1/10W
XY	R6040M	063-11059-65A	RESISTOR, THICK FILM CHIP, 4.7K OHM 5% 1/10W
ABCDEFGHIJKLMN	R6041	063-10235-56	RESISTOR, FILM, 220 OHM 5% 1/4W
ABCDEFGHIJKLMN	R6042M	063-11059-37A	RESISTOR, THICK FILM CHIP, 330 OHM 5% 1/10W
ABCDEFGHIJKLMN	R6043	063-10235-56	RESISTOR, FILM, 220 OHM 5% 1/4W
ABCDEFGHIJKLMN	R6044M	063-11059-37A	RESISTOR, THICK FILM CHIP, 330 OHM 5% 1/10W



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## COMPONENT PARTS LIST

### SEE REFERENCE CHART ON PAGE 4-12

RC	REF	PART#	DESCRIPTION
BCDEJKLMNOa	R6045M	063-11059-57A	RESISTOR, THICK FILM CHIP, 2.2K OHM 5% 1/10W
A	R6045M	063-11059-61A	RESISTOR, THICK FILM CHIP, 3.3K OHM 5% 1/10W
FGHIPQRSTUVWXYZ	R6045M	063-11059-65A	RESISTOR, THICK FILM CHIP, 4.7K OHM 5% 1/10W
BCDEJKLMNOa	R6046M	063-11059-56A	RESISTOR, THICK FILM CHIP, 2K OHM 5% 1/10W
A	R6046M	063-11059-61A	RESISTOR, THICK FILM CHIP, 3.3K OHM 5% 1/10W
FGHIPQRSTUVWXYZ	R6046M	063-11059-65A	RESISTOR, THICK FILM CHIP, 4.7K OHM 5% 1/10W
ABCDEFHGHIJKLMNQPQRSTUVWXYZa	R6047M	063-11059-65A	RESISTOR, THICK FILM CHIP, 4.7K OHM 5% 1/10W
ABCDEFHGHIJKLMNQPQRSTUVWXYZa	R6048M	063-11059-65A	RESISTOR, THICK FILM CHIP, 4.7K OHM 5% 1/10W
ABCDEFHGHIJKLMNQPQRSTUVWXYZa	R6049	063-10235-56	RESISTOR, FILM, 220 OHM 5% 1/4W
ABCDEFHGHIJKLMNQPQRSTUVWXYZa	R6050M	063-11059-33A	RESISTOR, THICK FILM CHIP, 220 OHM 5% 1/10W
ABCDEFHGHIJKLMNQPQRSTUVWXYZa	R6053M	063-11059-53A	RESISTOR, THICK FILM CHIP, 1.5K OHM 5% 1/10W
ABCDEFHGHIJKLMNQPQRSTUVWXYZa	R6058M	063-11059-87A	RESISTOR, THICK FILM CHIP, 39K OHM 5% 1/10W
ABCDEFHGHIJKLMNQPQRSTUVWXYZa	R6059M	063-11059-65A	RESISTOR, THICK FILM CHIP, 4.7K OHM 5% 1/10W
ABCDEFHGHIJKLMNQPQRSTUVWXYZa	R6060M	063-11059-65A	RESISTOR, THICK FILM CHIP, 4.7K OHM 5% 1/10W
ABCDEFHGHIJKLMNQPQRSTUVWXYZa	R6061M	063-11059-57A	RESISTOR, THICK FILM CHIP, 2.2K OHM 5% 1/10W
FGHILMNQPQRSTUVWXYZ	R6069M	063-11060-13A	RESISTOR, THICK FILM CHIP, 470K OHM 5% 1/10W
FGHILMNQPQRSTUVWXYZ	R6070M	063-11060-13A	RESISTOR, THICK FILM CHIP, 470K OHM 5% 1/10W
ABCDEFHGHIJKLMNQPQRSTUVWXYZa	R6072	063-10235-96	RESISTOR, FILM, 10K OHM 5% 1/4W
ABCDEFHGHIJKLMNQPQRSTUVWXYZa	R6080	063-10236-41	RESISTOR, FILM, 750K OHM 5% 1/4W
HTUVWXY	R6082M	063-11059-25A	RESISTOR, THICK FILM CHIP, 100 OHM 5% 1/10W
ABCDEFHGHIJKLMNQPQRZa	R6082M	063-11059-41A	RESISTOR, THICK FILM CHIP, 470 OHM 5% 1/10W
XY	R6083M	063-11059-60A	RESISTOR, THICK FILM CHIP, 3K OHM 5% 1/10W
XY	R6084M	063-11059-73A	RESISTOR, THICK FILM CHIP, 10K OHM 5% 1/10W
ABCDEFHGHIJKLMNQPQRSTUVWXYZa	R6090M	063-11059-49A	RESISTOR, THICK FILM CHIP, 1K OHM 5% 1/10W
ABCDEFGHI	RX2115	063-11110-04	RESISTOR, FILM, 1.5 OHM 5% 1/2W
JKLMNQPQRSTUVWXYZa	RX2115	063-11110-06	RESISTOR, FILM, 1.8 OHM 5% 1/2W
ABCDEFGHI	RX2116	063-11110-04	RESISTOR, FILM, 1.5 OHM 5% 1/2W
JKLMNQPQRSTUVWXYZa	RX2116	063-11110-06	RESISTOR, FILM, 1.8 OHM 5% 1/2W
ABCDEFHGHIJKLMNQPQRSTUVWXYZa	RX2117	063-10235-10	RESISTOR, FILM, 2.7 OHM 5% 1/4W
ABCDEFHGHIJKLMNQPQRSTUVWXYZa	RX2124	063-11214-16	RESISTOR, FILM, 0.51 OHM 5% 1/2W
HTUVWXY	RX2503	091-02053	WIRE, SOLID, BARE, 22 GA COPPER
ABCDEFHGHIJKLMNQPQRSTUVWXYZa	RX3008	063-10936-37	RESISTOR, FILM, 2.21K OHM 1% 1/4W
ABCDEFHGHIJKLMNQPQRSTUVWXYZa	RX3009M	063-11059-97A	RESISTOR, THICK FILM CHIP, 100K OHM 5% 1/10W
ABCDEFHGHIJKLMNQPQRSTUVWXYZa	RX3010M	063-11059-25A	RESISTOR, THICK FILM CHIP, 100 OHM 5% 1/10W
ABCDEFHGHIJKLMNQPQRSTUVWXYZa	RX3016	063-10936-72	RESISTOR, FILM, 4.32K OHM 1% 1/4W

RC	REF	PART#	DESCRIPTION
ABCDEFHGHIJKLMNQPQRSTUVWXYZa	RX3022	063-10936-72	RESISTOR, FILM, 4.32K OHM 1% 1/4W
ABCDEFHGHIJKLMNQPQRSTUVWXYZa	RX3207	063-10243-45	RESISTOR, FILM, 75 OHM 5% 1/2W
ABCDEFHGHIJKLMNQPQRSTUVWXYZa	RX3208	063-10565-10	RESISTOR, FILM, 2.7 OHM 5% 1/2W
ABCDEFHGHIJKLMNQPQRSTUVWXYZa	RX3209	063-10460-44A	RESISTOR, WIREWOUND, 6.8 OHM 10% 10W
ABCDEFHGHIJKLMNQPQRSTUVWXYZa	RX3211	063-10565	RESISTOR, FILM, 1 OHM 5% 12W
ABCDEFHGHI	RX3212	063-10235-88	RESISTOR, FILM, 4.7K OHM 5% 14W
ABCDEFHGHIJKLMNQPQRSTUVWXYZa	RX3214	063-10244-04	RESISTOR, FILM, 22K OHM 5% 12W
ABCDEFHGHIJKLMNQPQRSTUVWXYZa	RX3215	063-10832-69B	RESISTOR, FILM, 750 OHM 5% 1W
ABCDEFHGHIJKLMNQPQRSTUVWXYZa	RX3216	063-11160-60B	RESISTOR, FILM, 330 OHM 5% 2W
JKLNPRTVZ	RX3217	063-10442-28A	RESISTOR, WIREWOUND, 1.5 OHM 5% 5W
ABCDEFGHI	RX3217	063-10442-37A	RESISTOR, WIREWOUND, 3.6 OHM 5% 5W
MOQSUWa	RX3217	063-11164-02B	RESISTOR, FILM, 1.2 OHM 5% 3W
XY	RX3217	063-11164-10B	RESISTOR, FILM, 2.7 OHM 5% 3W
ABCDEFHGHIJKLMNQPQRSTUVWXYZa	RX3218	063-10243-48	RESISTOR, FILM, 100 OHM 5% 1/2W
ABCDEFHGHIJKLMNQPQRSTUVWXYZa	RX3400	063-11264-01	RESISTOR, CARBON COMPOSITION, 5.6M OHM 20% 1/2W
ABCDEFHGHIJKLMNQPQRSTUVWXYZa	RX3401	063-10444-20A	RESISTOR, WIREWOUND, 0.68 OHM 10% 5W
ABCDEFHGHIJKLMNQPQRSTUVWXYZa	RX3403	063-10442-04A	RESISTOR, WIREWOUND, 0.15 OHM 5% 5 WATT
ABCDEFHGHIJKLMNQPQRSTUVWXYZa	RX3404	063-11088-26	RESISTOR, FILM, 180K OHM 5% 1/2W
ABCDEFHGHIJKLMNQPQRSTUVWXYZa	RX3405	063-11164-02B	RESISTOR, FILM, 1.2 OHM 5% 3W
ABCDEFHGHIJKLMNQPQRSTUVWXYZa	RX3406	063-10235-40	RESISTOR, FILM, 47 OHM 5% 1/4W
IZ	RX3407	063-11156-40B	RESISTOR, FILM, 47 OHM 5% 1W
ABCDEFHGHIJKLMNQPQRSTUVWXYZa	RX3407	063-11160-35B	RESISTOR, FILM, 30 OHM 5% 2W
IZ	RX3408	063-11156-32B	RESISTOR, FILM, 22 OHM 5% 1W
ABCDEFHGHIJKLMNQPQRSTUVWXYZa	RX3408	063-11160-24B	RESISTOR, FILM, 10 OHM 5% 2W
ABCDEFHGHIJKLMNQPQRSTUVWXYZa	RX3409	063-10565-28	RESISTOR, FILM, 15 OHM 5% 1/2W
ABCDEFHGHIJKLMNQPQRSTUVWXYZa	RX3417	063-10444-52B	RESISTOR, WIREWOUND, 15 OHM 10% 5 WATT
K	RX3423	063-11160-48B	RESISTOR, FILM, 100 OHM 5% 2W
ABCDEFHGHIJKLMNQPQRZa	RX3423	063-11160-52B	RESISTOR, FILM, 150 OHM 5% 2W
HTUVWXY	RX3427	063-10442-60B	RESISTOR, WIREWOUND, 33 OHM 5% 5W
K	RX3427	063-11160-48B	RESISTOR, FILM, 100 OHM 5% 2W
ABCDEFHGHIJKLMNQPQRZa	RX3427	063-11160-52B	RESISTOR, FILM, 150 OHM 5% 2W
ABCDEFHGHIJKLMNQPQRZa	RX3428	063-10235-54	RESISTOR, FILM, 180 OHM 5% 1/4W
FGIPQRSXYZ	RX3428	063-10243-45	RESISTOR, FILM, 75 OHM 5% 1/2W
ABCDEFHGHIJKLMNQPQRSTUVWXYZa	RX5104	063-10837B	RESISTOR, FILM, 15K OHM 5% 2W



Critical safety components are identified by the letter "X" in their component designators and are shaded. Replace only with part numbers specified.

## COMPONENT PARTS LIST

# SEE REFERENCE CHART ON PAGE 4-12

RC	REF	PART#	DESCRIPTION
ABCDEFGHIJKLMNOPQRSTUVWXYZa	RX5111	063-10837B	RESISTOR, FILM, 15K OHM 5% 2W
ABCDEFGHIJKLMNOPQRSTUVWXYZa	RX5122	063-10837B	RESISTOR, FILM, 15K OHM 5% 2W
ABCDEJKa	SW0001	085-01832	SWITCH, PUSH-BUTTON, NON LOCKING, SPST
ABCDEJKa	SW0002	085-01832	SWITCH, PUSH-BUTTON, NON LOCKING, SPST
ABCDEJKa	SW0003	085-01832	SWITCH, PUSH-BUTTON, NON LOCKING, SPST
ABCDEJKa	SW0004	085-01832	SWITCH, PUSH-BUTTON, NON LOCKING, SPST
ABCDEJKa	SW0005	085-01832	SWITCH, PUSH-BUTTON, NON LOCKING, SPST
ABCDEJKa	SW0006	085-01832	SWITCH, PUSH-BUTTON, NON LOCKING, SPST
ABCDEFGHIJKLMNOPQRSTUVWXYZa	THX3415	063-10710A	RESISTOR, THERMISTOR
CEGKNORSVWY	TU6000	175-02721	TUNER, VARACTOR, 181 CHANNEL, SINGLE IC, WORLD STAN
ABDFHIJLMPQTUXa	TU6000	175-02771	TUNER, VARACTOR, 181 CHANNEL, SINGLE IC, WORLD STAN
ABCDEFGHIJKLMNOPQRSTUVWXYZa	TX3204	064-01242	EYELET, ROLLED FLANGE
ADEUWa	TX3204	095-04372-01	SWEEP XFMR, COLOR FINAL, MINI
ABCDEFGHIJKLMNOPQRSTUVWXYZa	TX3204	095-04601-01	SWEEP XFMR, COLOR, FINAL, MINI
ABCDEFGHIJKLMNOPQRSTUVWXYZa	TX3205	095-04477-01	TRANSFORMER, HORIZONTAL DRIVER
ABCDEFGHIJKLMNOPQRSTUVWXYZa	TX3401	064-01242	EYELET, ROLLED FLANGE
ABCDEFGHIJKLMNOPQRSTUVWXYZa	TX3401	095-04574	TRANSFORMER, CHOPPER
ABCDEFGHIJKLMNOPQRSTUVWXYZa	U1200	224-00160	FILTER, SURFACE ACOUSTIC WAVE
ABCDEFGHIJKLMNOPQRSTUVWXYZa	U1201	224-00139-01A	FILTER, 4.5 MHZ CERAMIC BANDPASS
ABCDEFGHIJKLMNOPQRSTUVWXYZa	U1202	224-00023A	CERAMIC FILTER, 4.5 MHZ TRAP
HTUVVWXY	W0130	063-10235-70	RESISTOR, FILM, 820 OHM 5% 1/4W
BCDEHJKLMNOTUVWa	ZD1405	103-00279-21A	DIODE, ZENER, 12V 0.5W
FGIPQRSXYZ	ZD2901	103-00279-10A	DIODE, ZENER, 5.1V 0.5W
FGIPQRSXYZ	ZD2902	103-00279-18A	DIODE, ZENER, 9.1V 0.5W
DEFGHILMNOPQRSTUVWXYZ	ZD2903	103-00279-18A	DIODE, ZENER, 9.1V 0.5W
ABCDEFGHIJKLMNOPQRSTUVWXYZa	ZD6001	103-00279-36A	DIODE, ZENER, 33V 0.5W
ABCDEFGHIJKLMNOPQRSTUVWXYZa	ZDX3004	103-00472A	DIODE, ZENER, 12V 0.5W
ABCDEFGHIJKLMNOPQRSTUVWXYZa	ZDX3401	103-00279-24A	DIODE, ZENER, 15V 0.5W


RC	REF	PART#	DESCRIPTION



Critical safety components are identified by the letter "X" in their component designators and are shaded. Replace only with part numbers specified.





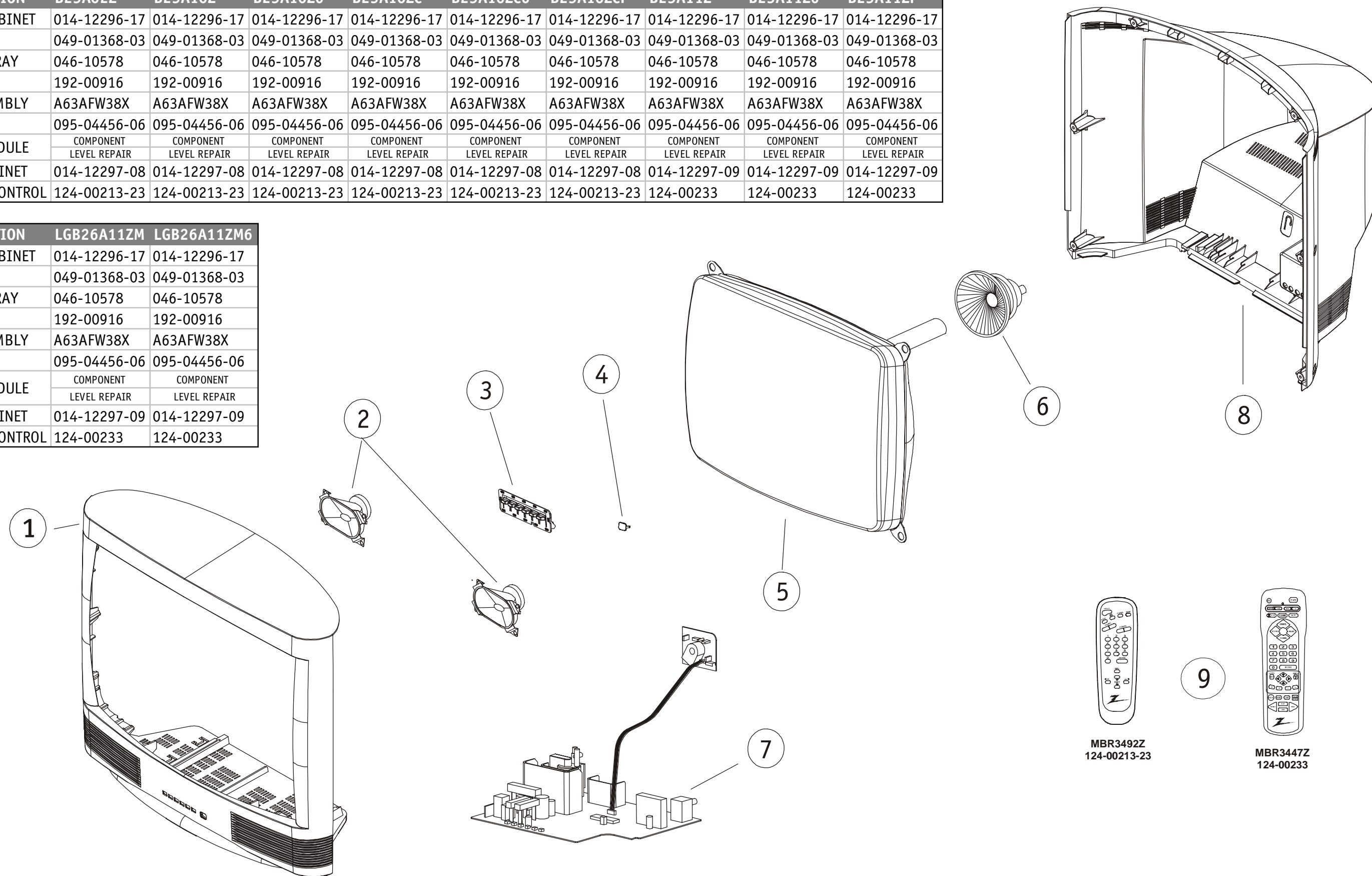
zenith 



## 25/26V Table Top Set Exploded View

REF	DESCRIPTION	B25A02Z	B25A10Z	B25A10Z6	B25A10ZC	B25A10ZC6	B25A10ZCF	B25A11Z	B25A11Z6	B25A11ZF
1	FRONT CABINET	014-12296-17	014-12296-17	014-12296-17	014-12296-17	014-12296-17	014-12296-17	014-12296-17	014-12296-17	014-12296-17
2	SPEAKER	049-01368-03	049-01368-03	049-01368-03	049-01368-03	049-01368-03	049-01368-03	049-01368-03	049-01368-03	049-01368-03
3	KNOB ARRAY	046-10578	046-10578	046-10578	046-10578	046-10578	046-10578	046-10578	046-10578	046-10578
4	IR LENS	192-00916	192-00916	192-00916	192-00916	192-00916	192-00916	192-00916	192-00916	192-00916
5	CRT ASSEMBLY	A63AFW38X	A63AFW38X	A63AFW38X	A63AFW38X	A63AFW38X	A63AFW38X	A63AFW38X	A63AFW38X	A63AFW38X
6	YOKE	095-04456-06	095-04456-06	095-04456-06	095-04456-06	095-04456-06	095-04456-06	095-04456-06	095-04456-06	095-04456-06
7	MAIN MODULE	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR
8	REAR CABINET	014-12297-08	014-12297-08	014-12297-08	014-12297-08	014-12297-08	014-12297-08	014-12297-09	014-12297-09	014-12297-09
9	REMOTE CONTROL	124-00213-23	124-00213-23	124-00213-23	124-00213-23	124-00213-23	124-00213-23	124-00233	124-00233	124-00233

REF	DESCRIPTION	LGB26A11ZM	LGB26A11ZM6
1	FRONT CABINET	014-12296-17	014-12296-17
2	SPEAKER	049-01368-03	049-01368-03
3	KNOB ARRAY	046-10578	046-10578
4	IR LENS	192-00916	192-00916
5	CRT ASSEMBLY	A63AFW38X	A63AFW38X
6	YOKE	095-04456-06	095-04456-06
7	MAIN MODULE	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR
8	REAR CABINET	014-12297-09	014-12297-09
9	REMOTE CONTROL	124-00233	124-00233



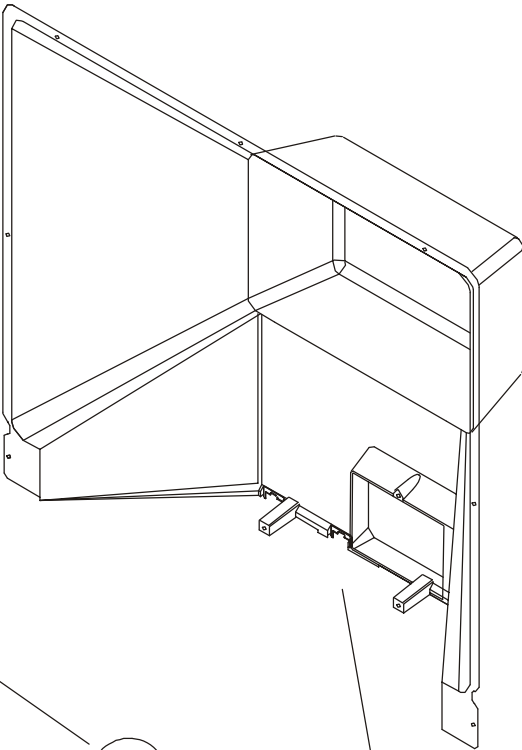
# 25V Table Top Set Exploded View

REF	DESCRIPTION	B25A24Z	B25A24Z6	B25A24ZF
1	FRONT CABINET	014-12187-14	014-12187-14	014-12187-14
2	SPEAKER	049-1368-03	049-1368-03	049-1368-03
3	KEYBOARD ASSEMBLY	F-50826	F-50826	F-50826
4	IR LENS	192-00858-01	192-00858-01	192-00858-01
5	CRT ASSEMBLY	A63AFW38X	A63AFW38X	A63AFW38X
6	YOKE	095-04456-06	095-04456-06	095-04456-06
7	REAR CABINET	014-12181-09	014-12181-09	014-12181-09
8	MAIN MODULE	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR
9	REMOTE CONTROL	124-00233	124-00233	124-00233

9



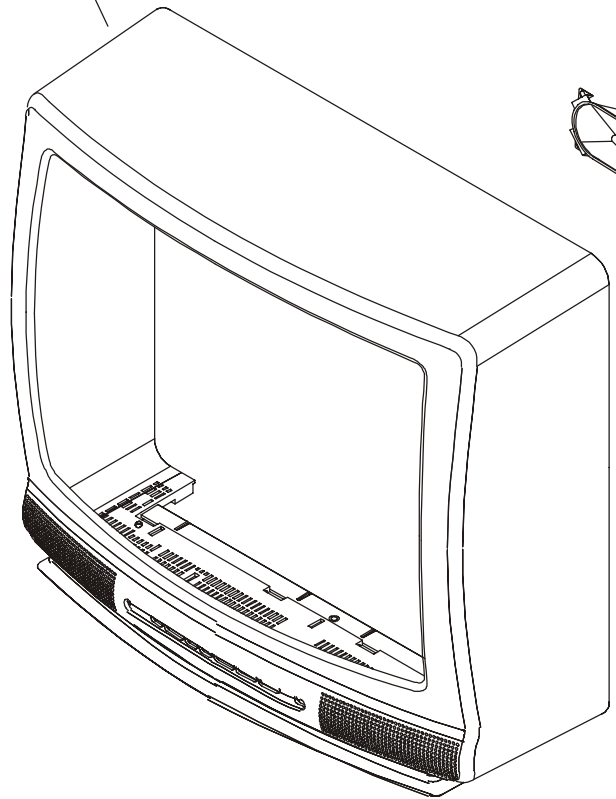
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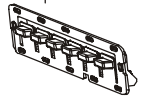
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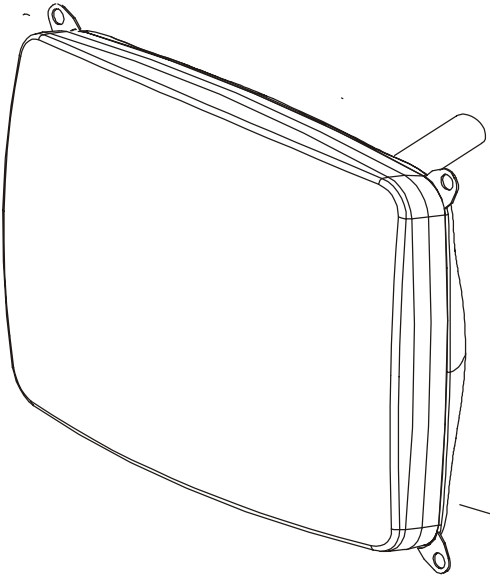
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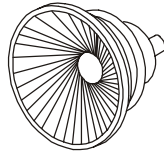
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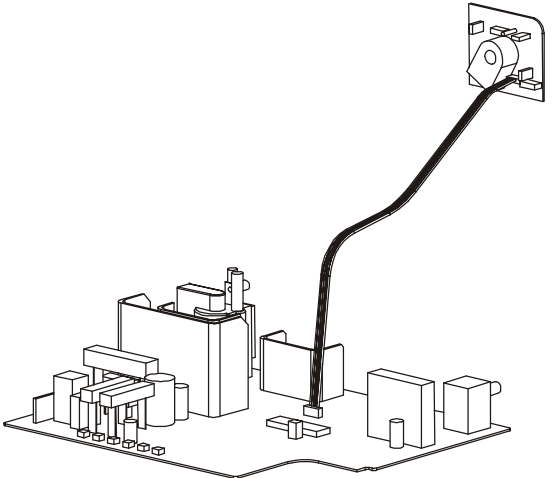
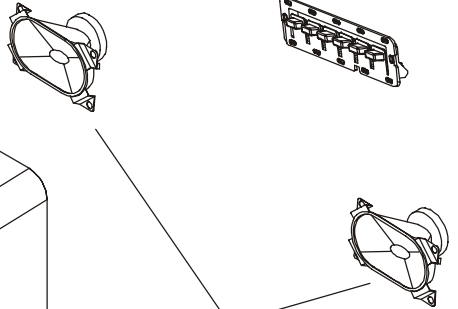
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2



8

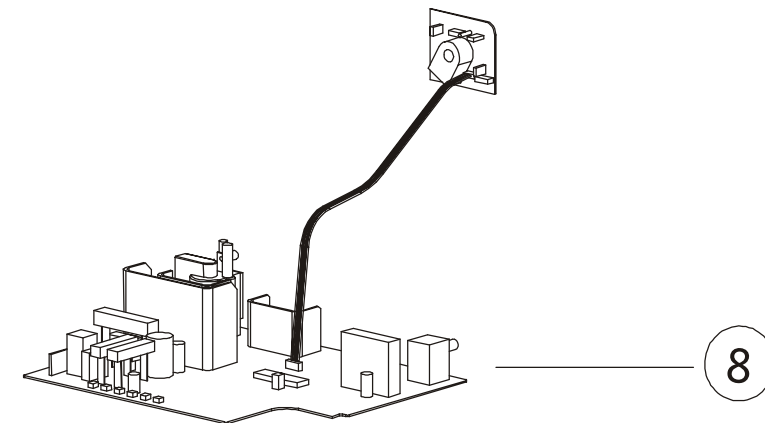
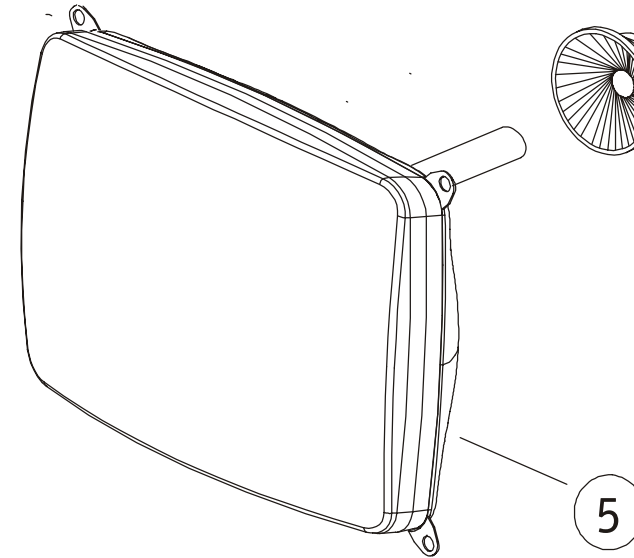
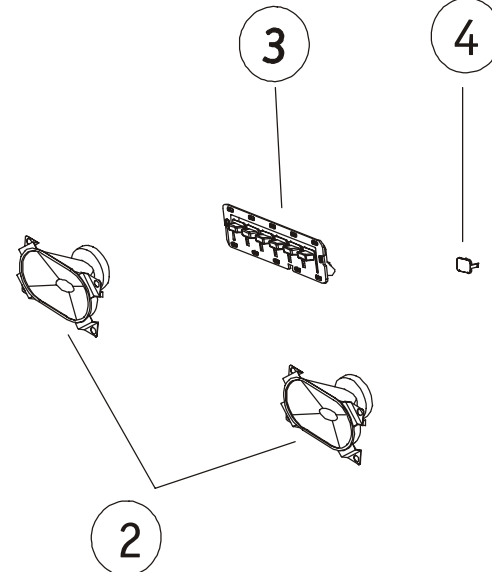
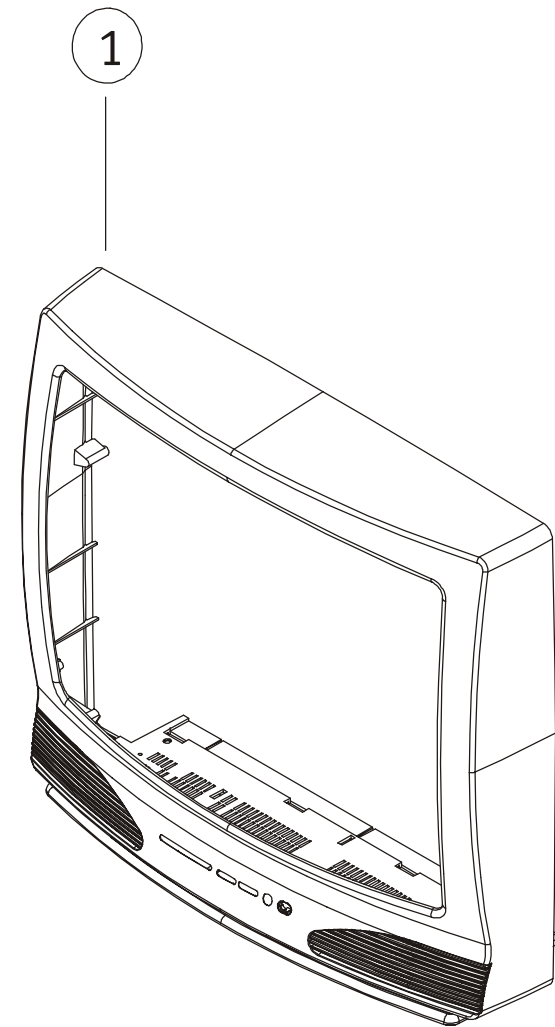
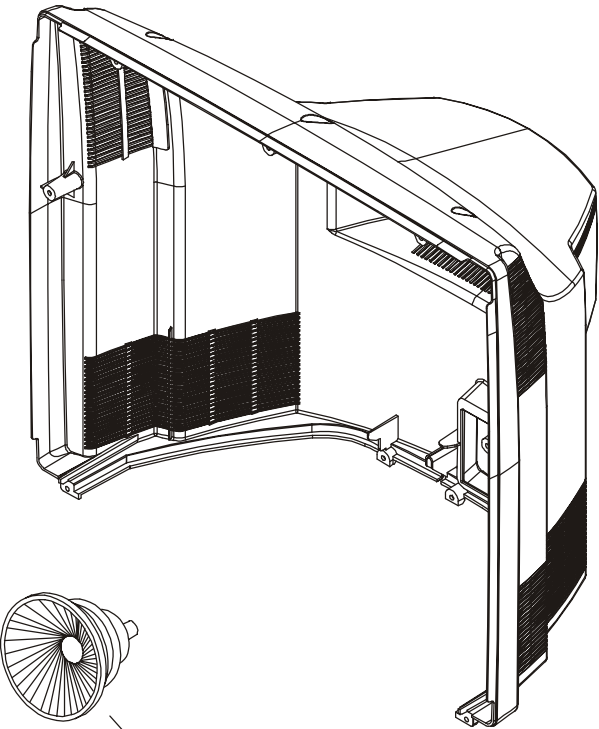
## 25V Table Top Set Exploded View

REF	DESCRIPTION	B25A30ZC	B25A30ZCF	CB25A25Z	CB25A25Z6
1	FRONT CABINET	014-12229-17	014-12229-17	014-12229-17	014-12229-17
2	SPEAKER	049-01368-03	049-01368-03	049-01368-03	049-01368-03
3	KEYBOARD ASSEMBLY	F-50825	F-50825	F-50825	F-50825
4	IR LENS	192-00887	192-00887	192-00887	192-00887
5	CRT ASSEMBLY	A63AFW38X	A63AFW38X	A63AFW38X	A63AFW38X
6	YOKE	095-04456-06	095-04456-06	095-04456-06	095-04456-06
7	REAR CABINET	014-12230-03	014-12230-03	014-12230-03	014-12230-03
8	MAIN MODULE	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR
9	REMOTE CONTROL	124-00229-01	124-00229-01	124-00233	124-00233

9



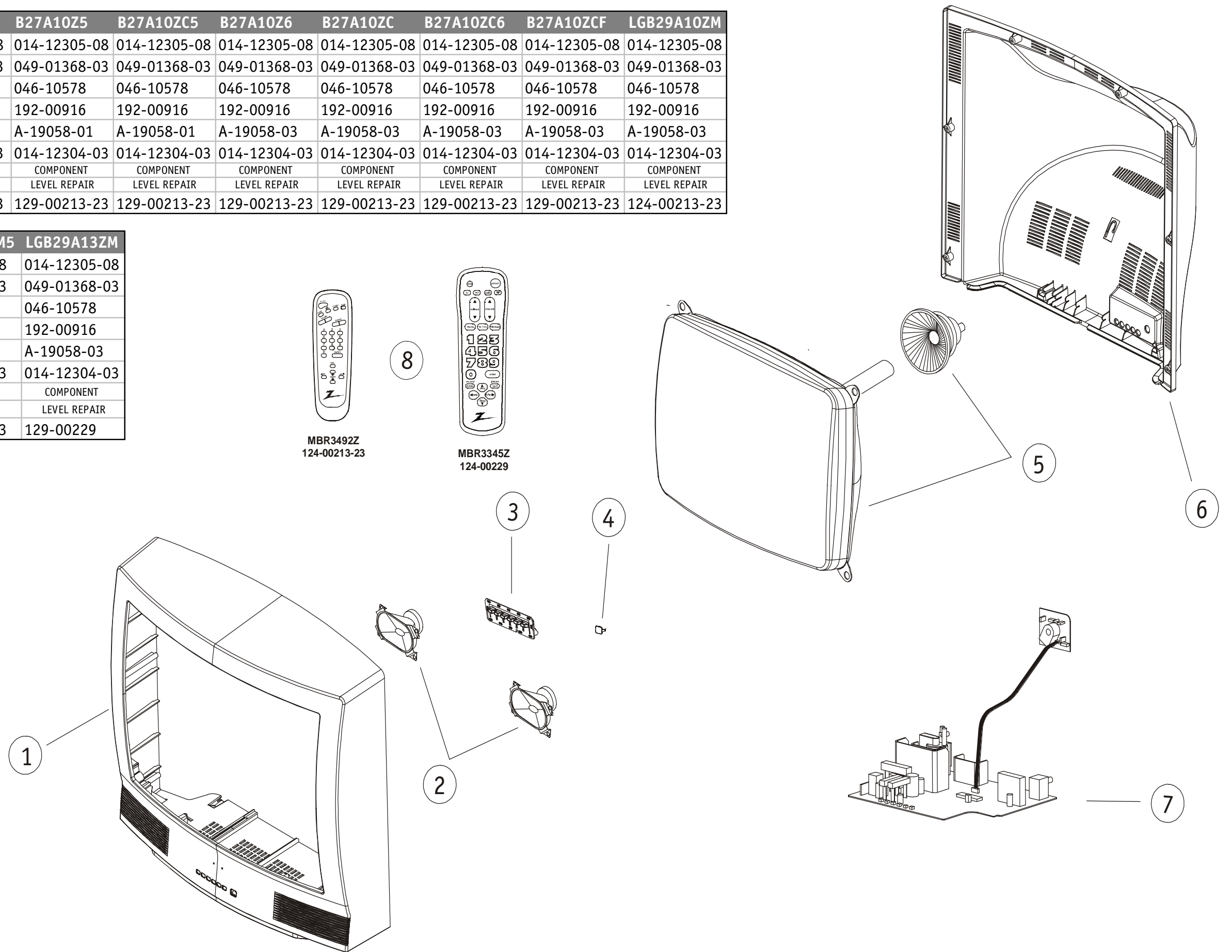
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124-00229-01



## 27/29V Table Top Set Exploded View

REF	DESCRIPTION	B27A10Z	B27A10Z5	B27A10ZC5	B27A10Z6	B27A10ZC	B27A10ZC6	B27A10ZCF	LGB29A10ZM
1	FRONT CABINET	014-12305-08	014-12305-08	014-12305-08	014-12305-08	014-12305-08	014-12305-08	014-12305-08	014-12305-08
2	SPEAKER	049-01368-03	049-01368-03	049-01368-03	049-01368-03	049-01368-03	049-01368-03	049-01368-03	049-01368-03
3	KNOB ARRAY	046-10578	046-10578	046-10578	046-10578	046-10578	046-10578	046-10578	046-10578
4	IR LENS	192-00916	192-00916	192-00916	192-00916	192-00916	192-00916	192-00916	192-00916
5	YOKE & CRT ASSEMBLY	A-19058-03	A-19058-01	A-19058-01	A-19058-03	A-19058-03	A-19058-03	A-19058-03	A-19058-03
6	REAR CABINET	014-12304-03	014-12304-03	014-12304-03	014-12304-03	014-12304-03	014-12304-03	014-12304-03	014-12304-03
7	MAIN MODULE	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR
8	REMOTE CONTROL	129-00213-23	129-00213-23	129-00213-23	129-00213-23	129-00213-23	129-00213-23	129-00213-23	124-00213-23

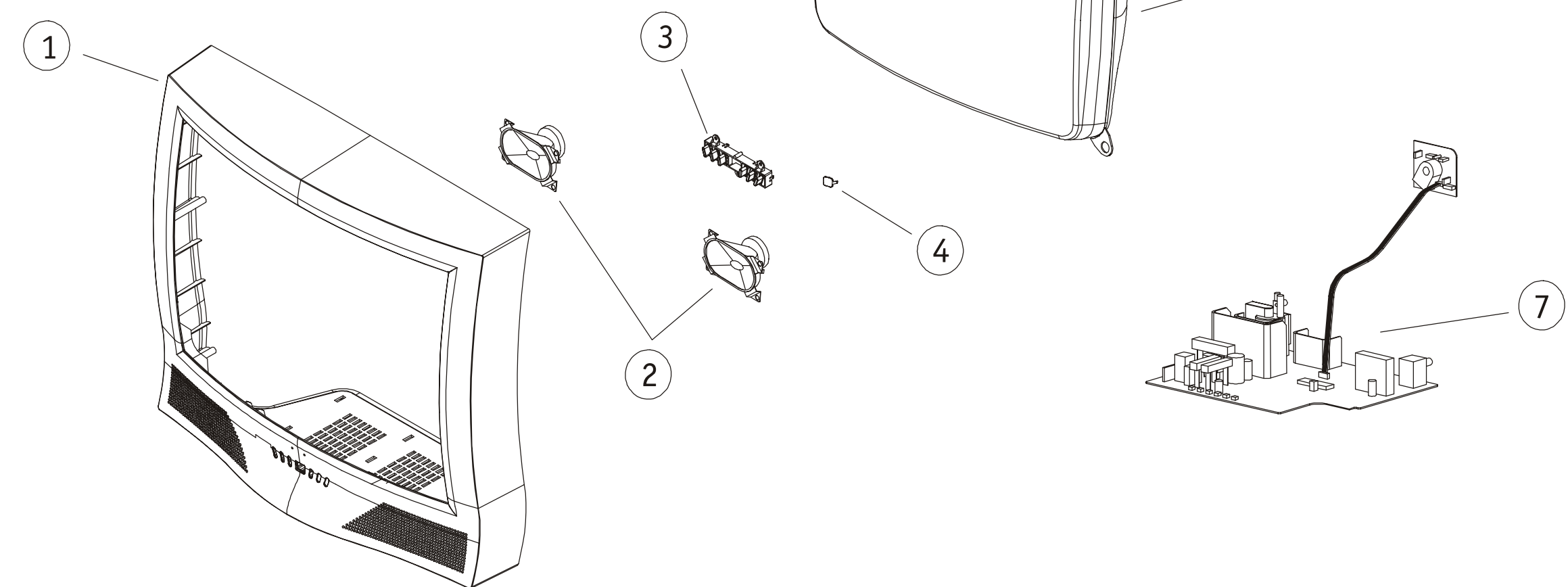
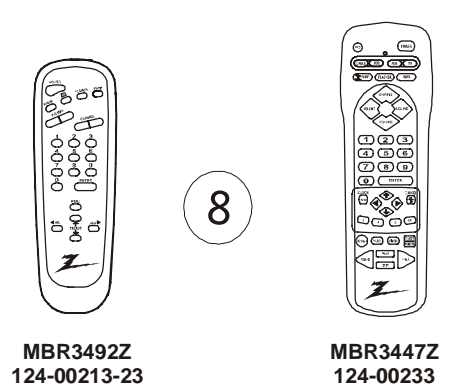
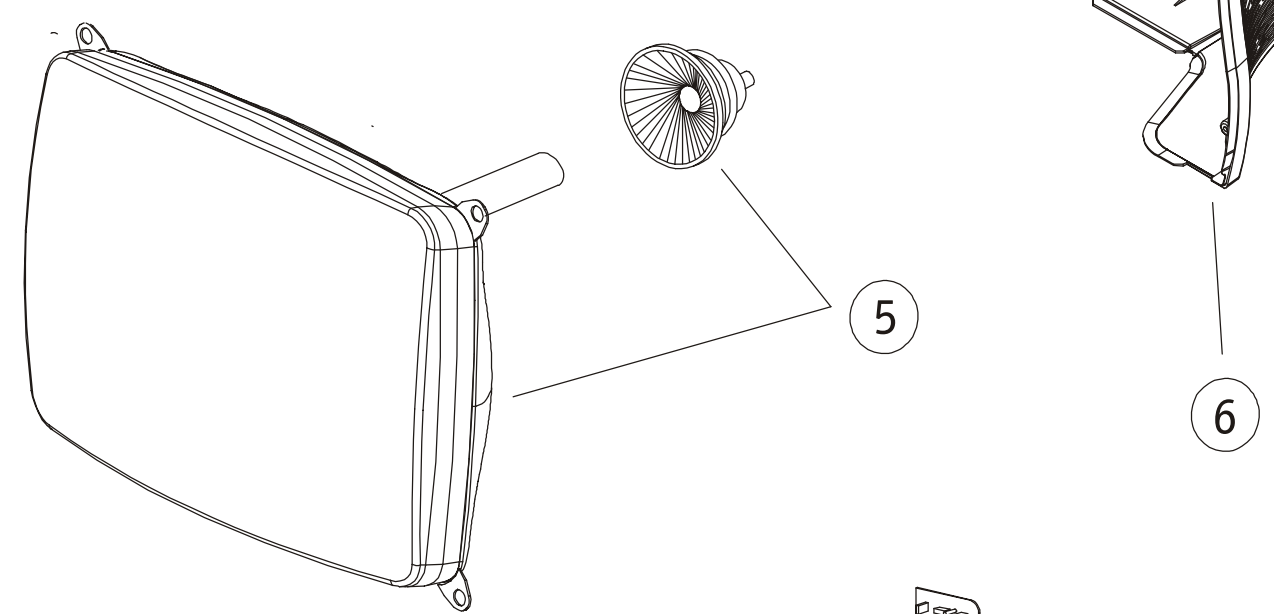
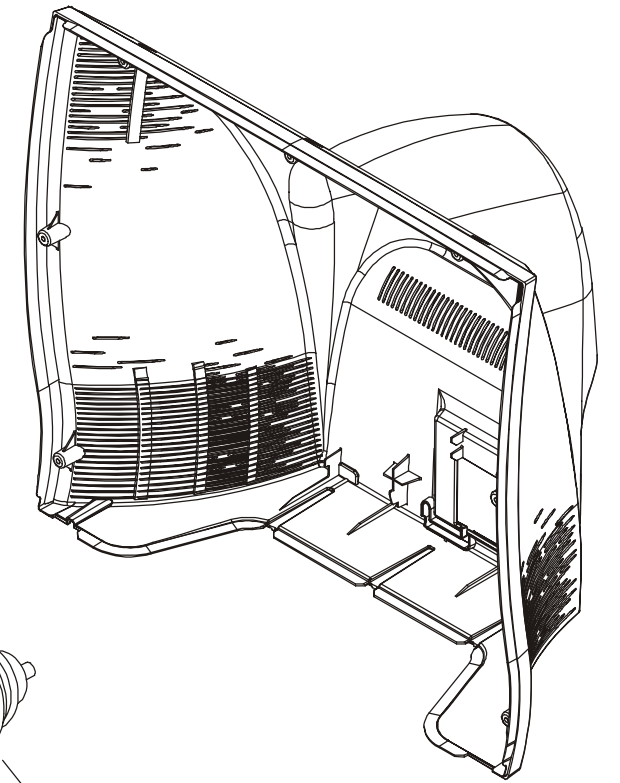
REF	DESCRIPTION	LGB29A10ZM5	LGB29A13ZM
1	FRONT CABINET	014-12305-08	014-12305-08
2	SPEAKER	049-01368-03	049-01368-03
3	KNOB ARRAY	046-10578	046-10578
4	IR LENS	192-00916	192-00916
5	YOKE & CRT ASSEMBLY	A-19058-01	A-19058-03
6	REAR CABINET	014-12304-03	014-12304-03
7	MAIN MODULE	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR
8	REMOTE CONTROL	124-00213-23	129-00229



## 27/29V Table Top Set Exploded View

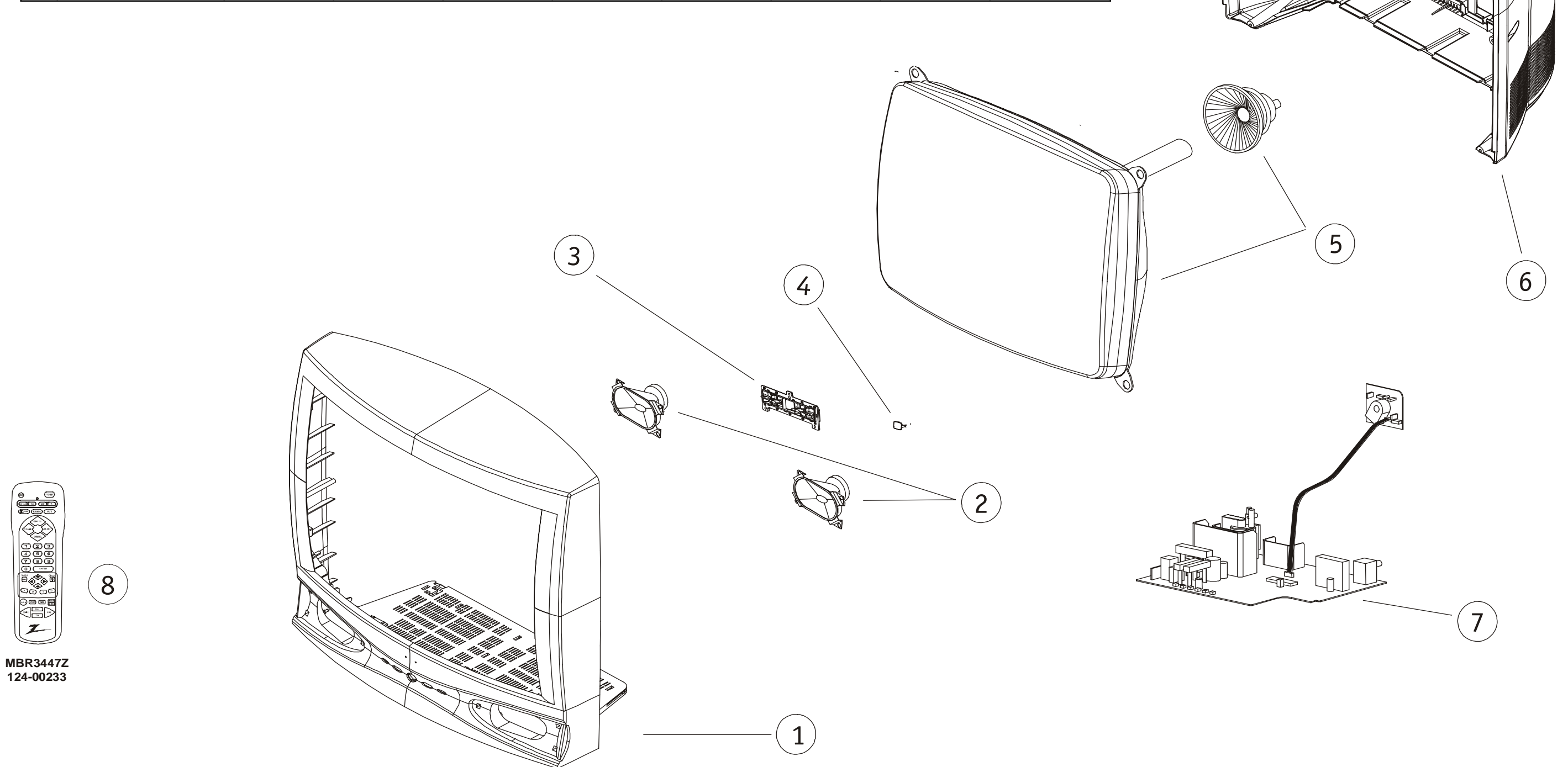
REF	DESCRIPTION	B27A11Z	B27A11Z5	B27A11Z6	B27A11Z65	B27A11ZC	B27A11ZC5	CB27A10Z	CB27A10ZC
1	FRONT CABINET	014-12281-08	014-12281-08	014-12281-08	014-12281-08	014-12281-08	014-12281-08	014-12281-08	014-12281-08
2	SPEAKER	049-01368-03	049-01368-03	049-01368-03	049-01368-03	049-01368-03	049-01368-03	049-01368-03	049-01368-03
3	KEYBOARD ASSEMBLY	F-52954	F-52954	F-52954	F-52954	F-52954	F-52954	F-52954	F-52954
4	IR LENS	192-00912	192-00912	192-00912	192-00912	192-00912	192-00912	192-00912	192-00912
5	YOKE & CRT ASSEMBLY	A-19058-03	A-19058-01	A-19058-03	A-19058-01	A-19058-03	A-19058-01	A-19058-01	A-19058-01
6	REAR CABINET	014-12282-06	014-12282-06	014-12282-06	014-12282-06	014-12282-06	014-12282-06	014-12282-06	014-12282-06
7	MAIN MODULE	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR
8	REMOTE CONTROL	124-00233	124-00233	124-00233	124-00233	124-00233	124-00233	124-00213-23	124-00213-23

REF	DESCRIPTION	LGB29A11ZM	LGB29A11ZM5
1	FRONT CABINET	014-12281-08	014-12281-08
2	SPEAKER	049-01368-03	049-01368-03
3	KEYBOARD ASSEMBLY	F-52954	F-52954
4	IR LENS	192-00912	192-00912
5	YOKE & CRT ASSEMBLY	A-19058-03	A-19058-01
6	REAR CABINET	014-12282-06	014-12282-06
7	MAIN MODULE	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR
8	REMOTE CONTROL	124-00233	124-00233



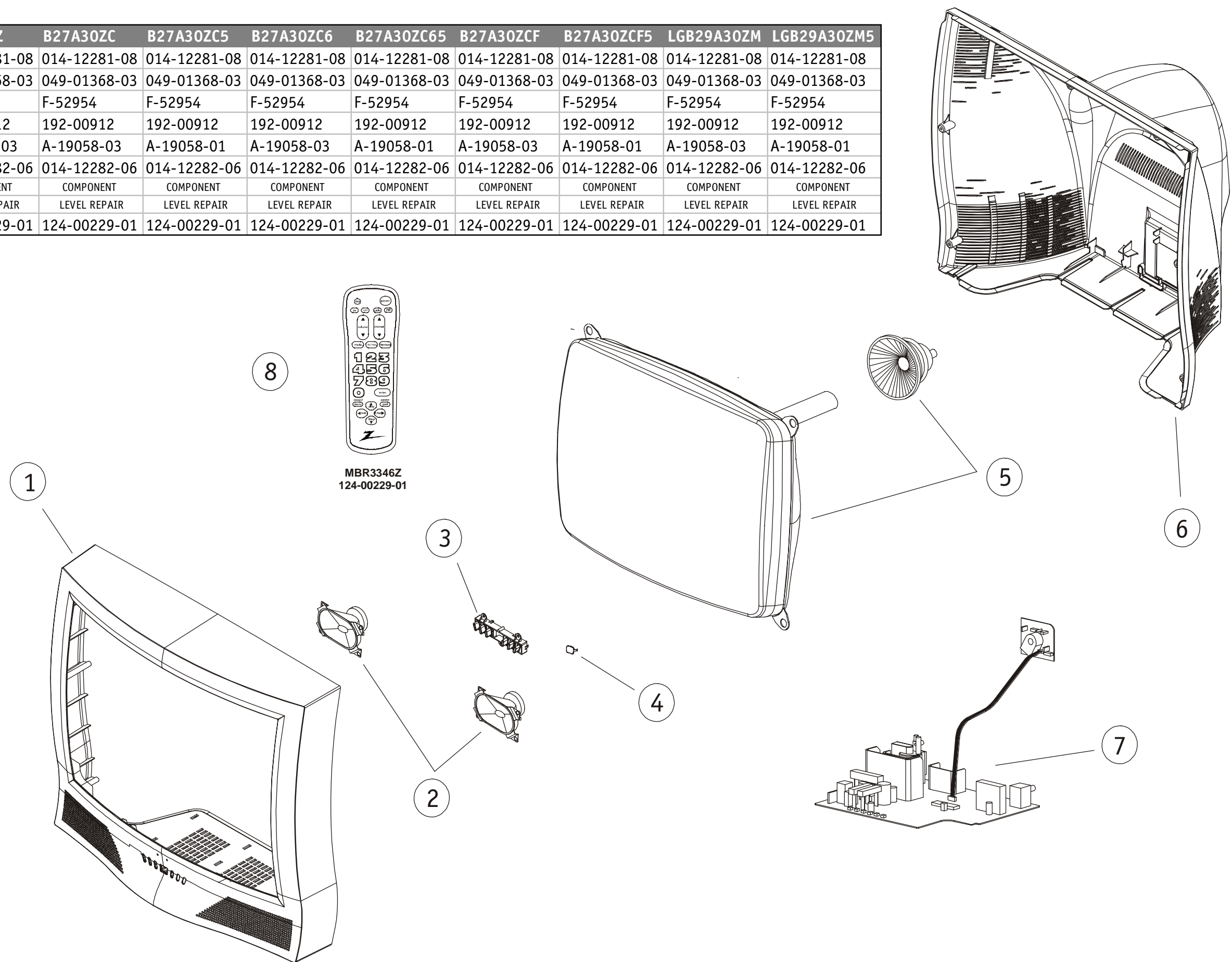
## 27/29V Table Top Set Exploded View

REF	DESCRIPTION	B27A24Z	B27A24Z5	B27A24Z6	B27A24Z65	B27A24ZF	B27A24ZF5	LGB29A24ZM	LGB29A24ZM5
1	FRONT CABINET	014-12317-04	014-12317-04	014-12317-04	014-12317-04	014-12317-04	014-12317-04	014-12317-04	014-12317-04
2	SPEAKER	049-01368-03	049-01368-03	049-01368-03	049-01368-03	049-01368-03	049-01368-03	049-01368-03	049-01368-03
3	KEYBOARD ASSEMBLY	F-53039	F-53039	F-53039	F-53039	F-53039	F-53039	F-53039	F-53039
4	IR LENS	192-00923	192-00923	192-00923	192-00923	192-00923	192-00923	192-00923	192-00923
5	YOKE & CRT ASSEMBLY	A-19058-03	A-19058-01	A-19058-03	A-19058-01	A-19058-03	A-19058-01	A-19058-03	A-19058-01
6	REAR CABINET	014-12254-06	014-12254-06	014-12254-06	014-12254-06	014-12254-06	014-12254-06	014-12254-06	014-12254-06
7	MAIN MODULE	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR
8	REMOTE CONTROL	124-00233	124-00233	124-00233	124-00233	124-00233	124-00233	124-00233	124-00233



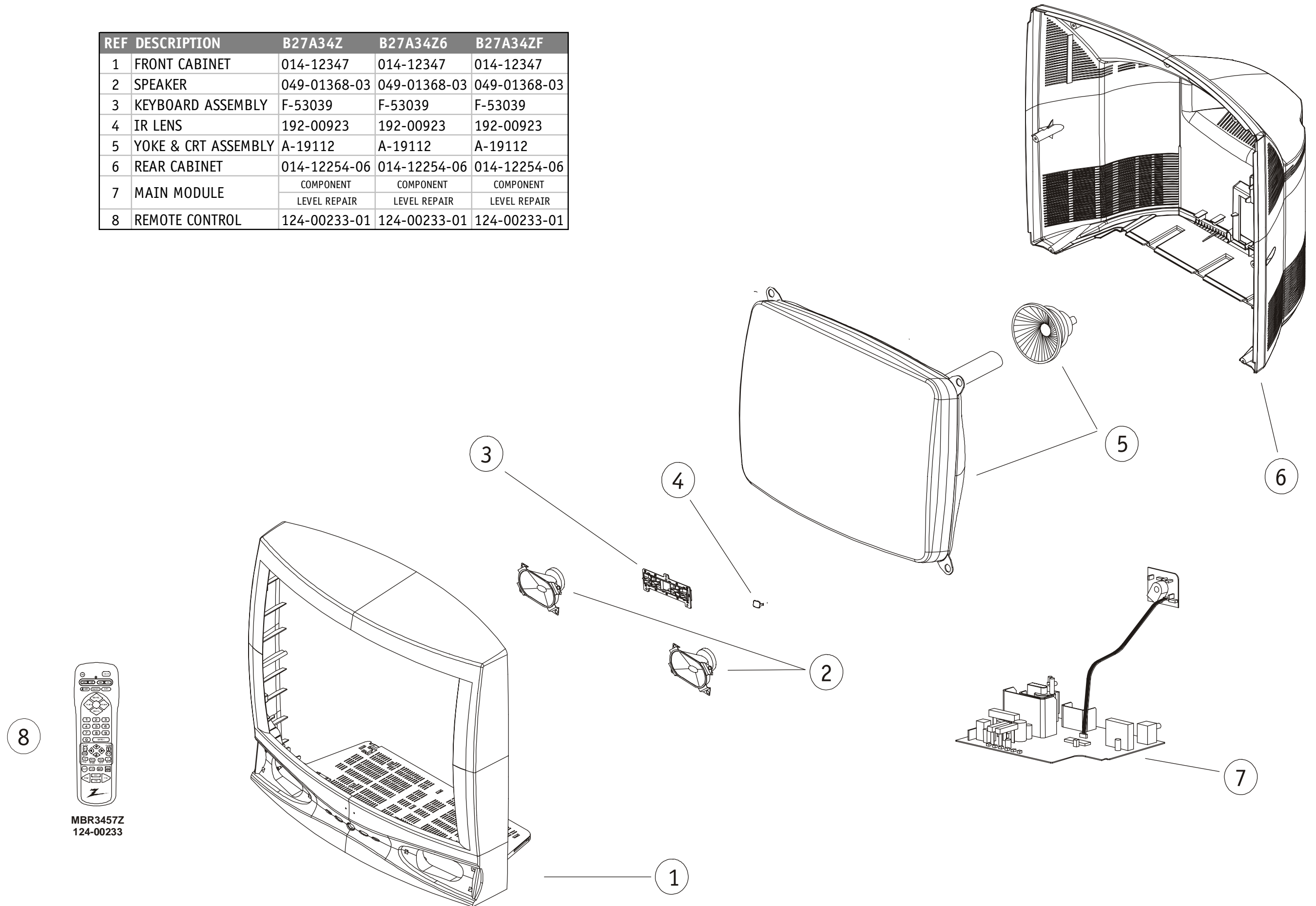
## 27/29V Table Top Set Exploded View

REF	DESCRIPTION	B27A30Z	B27A30ZC	B27A30ZC5	B27A30ZC6	B27A30ZC65	B27A30ZCF	B27A30ZCF5	LGB29A30ZM	LGB29A30ZM5
1	FRONT CABINET	014-12281-08	014-12281-08	014-12281-08	014-12281-08	014-12281-08	014-12281-08	014-12281-08	014-12281-08	014-12281-08
2	SPEAKER	049-01368-03	049-01368-03	049-01368-03	049-01368-03	049-01368-03	049-01368-03	049-01368-03	049-01368-03	049-01368-03
3	KEYBOARD ASSEMBLY	F-52954	F-52954	F-52954	F-52954	F-52954	F-52954	F-52954	F-52954	F-52954
4	IR LENS	192-00912	192-00912	192-00912	192-00912	192-00912	192-00912	192-00912	192-00912	192-00912
5	YOKE & CRT ASSEMBLY	A-19058-03	A-19058-03	A-19058-01	A-19058-03	A-19058-01	A-19058-03	A-19058-01	A-19058-03	A-19058-01
6	REAR CABINET	014-12282-06	014-12282-06	014-12282-06	014-12282-06	014-12282-06	014-12282-06	014-12282-06	014-12282-06	014-12282-06
7	MAIN MODULE	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR
8	REMOTE CONTROL	124-00229-01	124-00229-01	124-00229-01	124-00229-01	124-00229-01	124-00229-01	124-00229-01	124-00229-01	124-00229-01



## 27V Table Top Set Exploded View

REF	DESCRIPTION	B27A34Z	B27A34Z6	B27A34ZF
1	FRONT CABINET	014-12347	014-12347	014-12347
2	SPEAKER	049-01368-03	049-01368-03	049-01368-03
3	KEYBOARD ASSEMBLY	F-53039	F-53039	F-53039
4	IR LENS	192-00923	192-00923	192-00923
5	YOKE & CRT ASSEMBLY	A-19112	A-19112	A-19112
6	REAR CABINET	014-12254-06	014-12254-06	014-12254-06
		COMPONENT	COMPONENT	COMPONENT
7	MAIN MODULE	LEVEL REPAIR	LEVEL REPAIR	LEVEL REPAIR
		COMPONENT	COMPONENT	COMPONENT
8	REMOTE CONTROL	124-00233-01	124-00233-01	124-00233-01

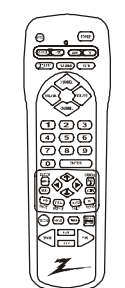




## 32V Table Top Set Exploded View

REF	DESCRIPTION	B32A24Z	B32A24Z6	B32A24ZF	B32A30Z	B32A30Z6	B32A30ZF
1	FRONT CABINET	014-12284-23	014-12284-23	014-12284-23	014-12284-23	014-12284-23	014-12284-23
2	SPEAKER	049-01368-03	049-01368-03	049-01368-03	049-01368-03	049-01368-03	049-01368-03
3	KEYBOARD ASSEMBLY	F-52060	F-52060	F-52060	F-52060	F-52060	F-52060
4	IR LENS	192-00912	192-00912	192-00912	192-00912	192-00912	192-00912
5	CRT	A81AGZ50X	A81AGZ50X	A81AGZ50X	A81AGZ50X	A81AGZ50X	A81AGZ50X
6	YOKE	095-04517-01	095-04517-01	095-04517-01	095-04208-01	095-04208-01	095-04208-01
7	REAR CABINET	014-12285-08	014-12285-08	014-12285-08	014-12285-08	014-12285-08	014-12285-08
8	MAIN MODULE	009-02068	009-02068-01	009-02068	009-02072	009-02072-01	009-02072
9	REMOTE CONTROL	124-00233	124-00233	124-00233	124-00229-01	124-00229-01	124-00229-01

REF	DESCRIPTION	B32A34Z	B32A34Z6	B32A34ZF
1	FRONT CABINET	014-12284-23	014-12284-23	014-12284-23
2	SPEAKER	049-01368-03	049-01368-03	049-01368-03
3	KEYBOARD ASSEMBLY	F-52060	F-52060	F-52060
4	IR LENS	192-00912	192-00912	192-00912
5	CRT	A81AGZ50X	A81AGZ50X	A81AGZ50X
6	YOKE	095-04208-01	095-04208-01	095-04208-01
7	REAR CABINET	014-12285-08	014-12285-08	014-12285-08
8	MAIN MODULE	009-02075	009-02075	009-02075
9	REMOTE CONTROL	124-00233-01	124-00233-01	124-00233-01



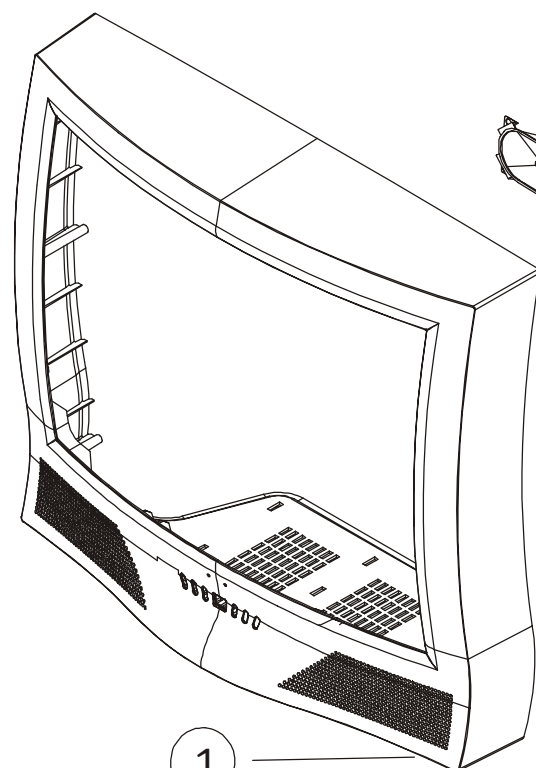
MBR3457Z  
124-00233



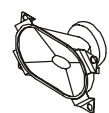
MBR3447Z  
124-00233



MBR3346Z  
124-00229-01

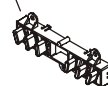


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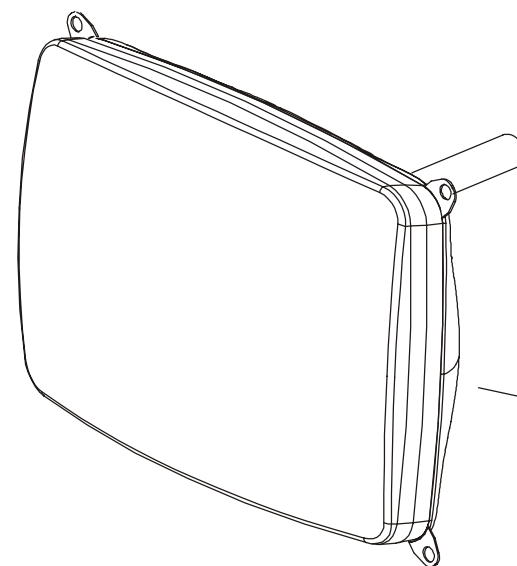


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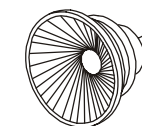
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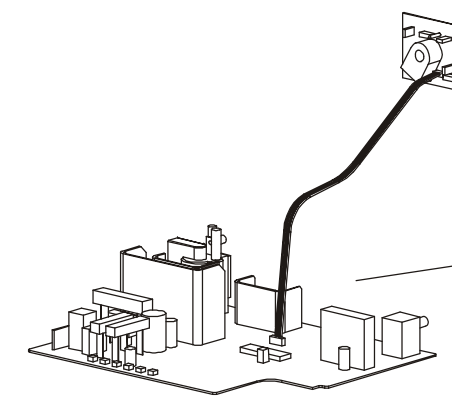


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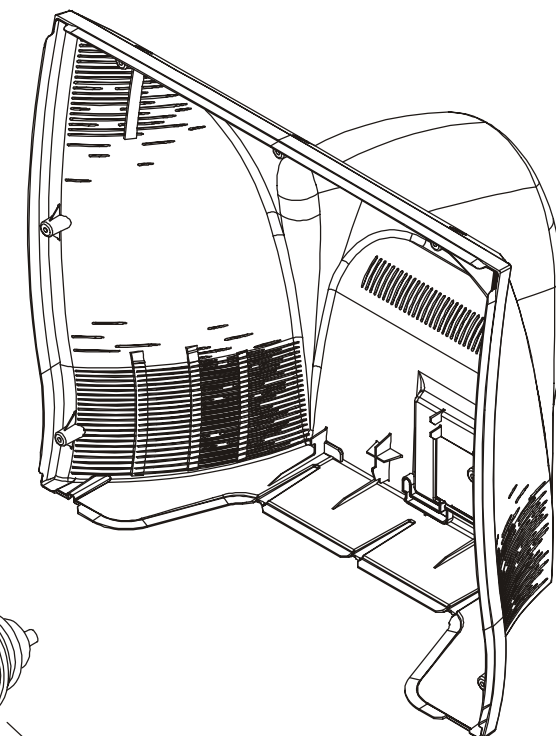


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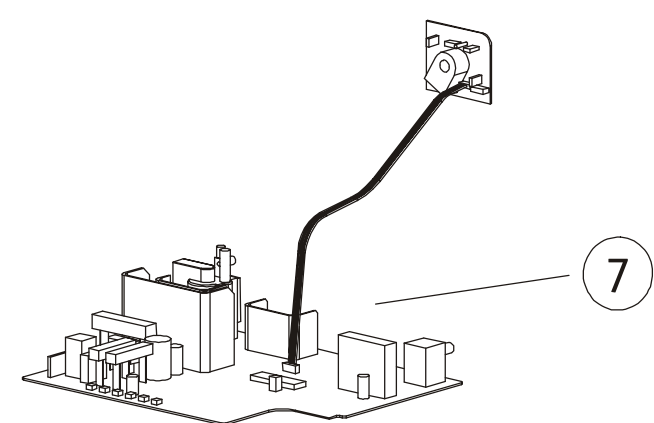
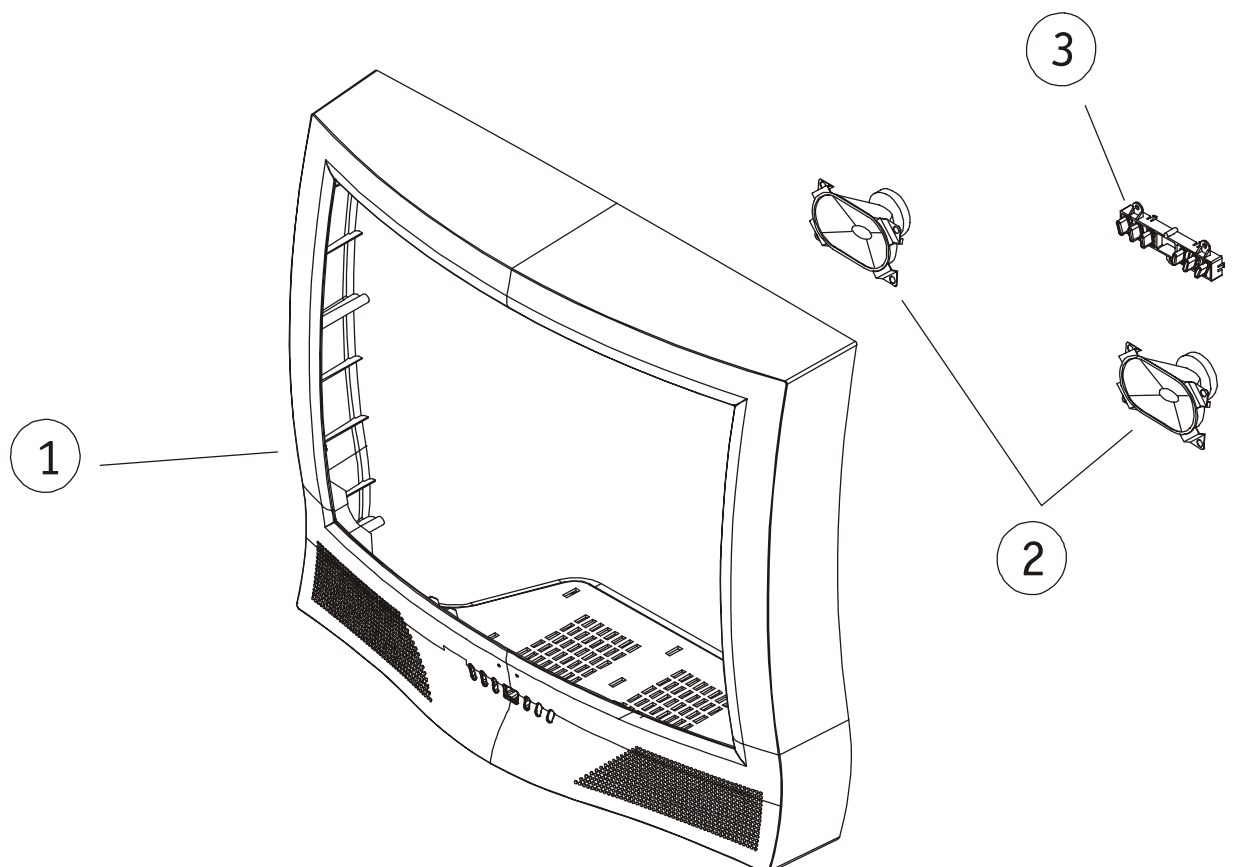
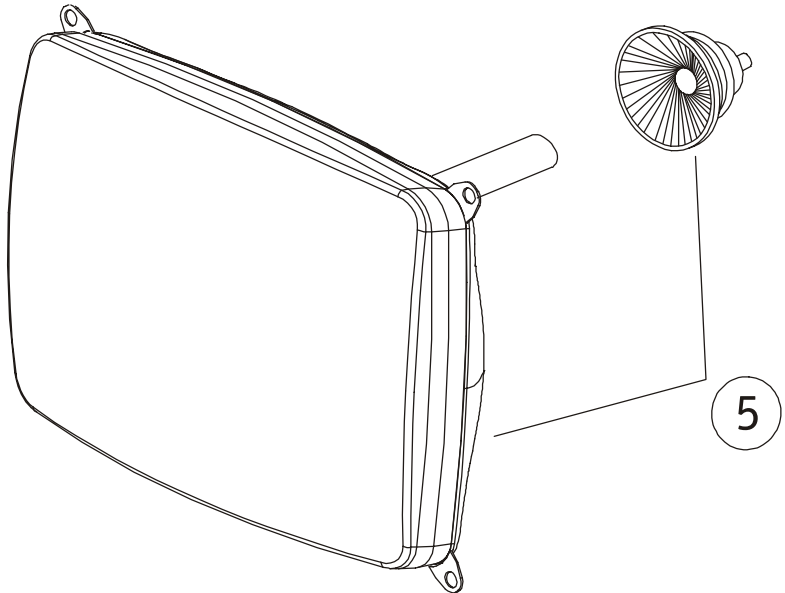
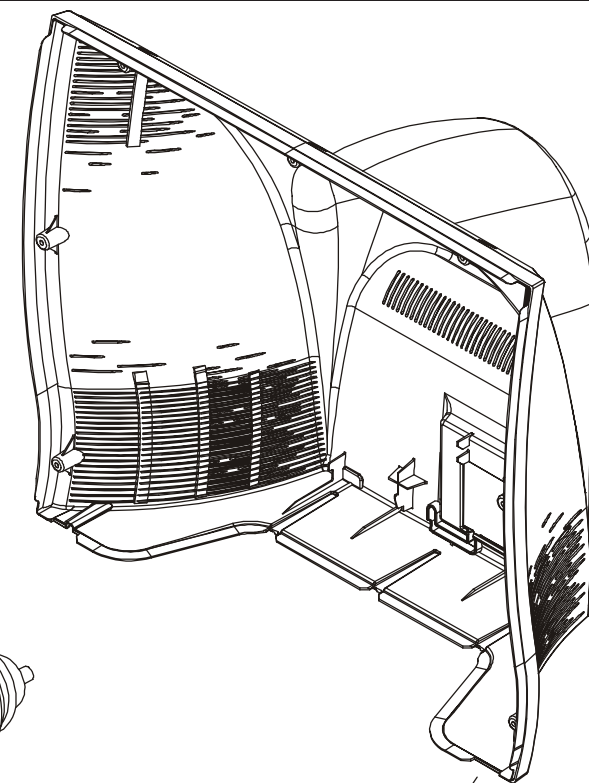


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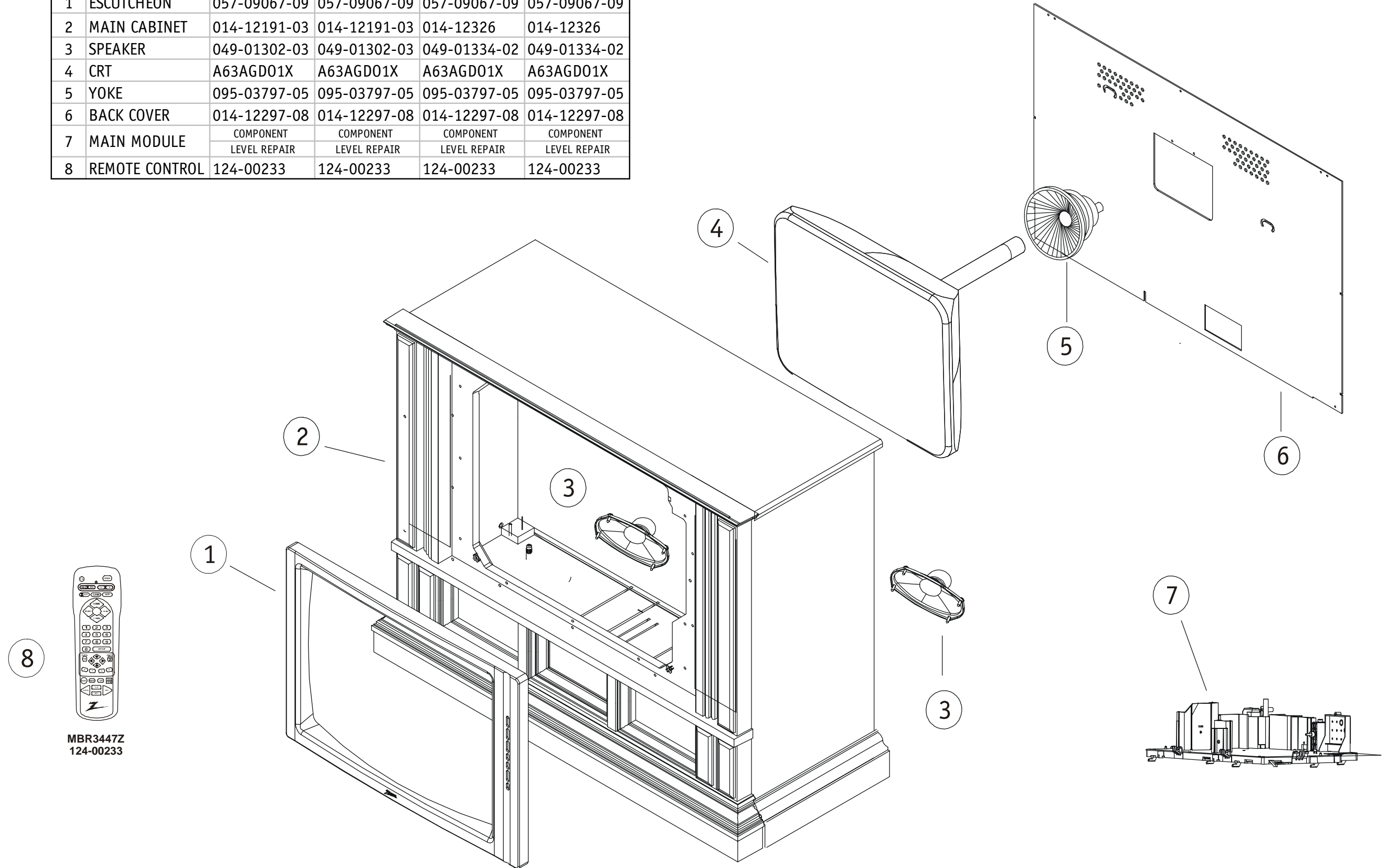
### 36V Table Top Set Exploded View

REF	DESCRIPTION	B36A24Z	B36A24Z6	B36A24ZF	B36A30Z	B36A30Z6	B36A30ZF	B36A34Z	B36A34Z6	B36A34ZF
1	FRONT CABINET	014-12269-12	014-12269-12	014-12269-12	014-12269-12	014-12269-12	014-12269-12	014-12269-12	014-12269-12	014-12269-12
2	SPEAKER	049-01368-03	049-01368-03	049-01368-03	049-01368-03	049-01368-03	049-01368-03	049-01368-03	049-01368-03	049-01368-03
3	KEYBOARD ASSEMBLY	F-52060	F-52060	F-52060	F-52060	F-52060	F-52060	F-52060	F-52060	F-52060
4	IR LENS	192-00912	192-00912	192-00912	192-00912	192-00912	192-00912	192-00912	192-00912	192-00912
5	YOKE & CRT ASSEMBLY	A-18639	A-18639	A-18639	A-18639	A-18639	A-18639	A-18639	A-18639	A-18639
6	REAR CABINET	014-12270-12	014-12270-12	014-12270-12	014-12270-12	014-12270-12	014-12270-12	014-12270-12	014-12270-12	014-12270-12
7	MAIN MODULE	009-02069	009-02069-01	009-02069	009-02073	009-02073-01	009-02073	009-02076	009-02076-01	009-02076
8	REMOTE CONTROL	124-00233	124-00233	124-00233	124-00229-01	124-00229-01	124-00229-01	124-00233-01	124-00233-01	124-00233-01



## 25/27V Traditional Console Set Exploded View

REF	DESCRIPTION	B25A74R	B25A74LK	B27A74R	B27A74R5
1	ESCUTCHEON	057-09067-09	057-09067-09	057-09067-09	057-09067-09
2	MAIN CABINET	014-12191-03	014-12191-03	014-12326	014-12326
3	SPEAKER	049-01302-03	049-01302-03	049-01334-02	049-01334-02
4	CRT	A63AGD01X	A63AGD01X	A63AGD01X	A63AGD01X
5	YOKE	095-03797-05	095-03797-05	095-03797-05	095-03797-05
6	BACK COVER	014-12297-08	014-12297-08	014-12297-08	014-12297-08
7	MAIN MODULE	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR
8	REMOTE CONTROL	124-00233	124-00233	124-00233	124-00233



MBR3447Z  
124-00233

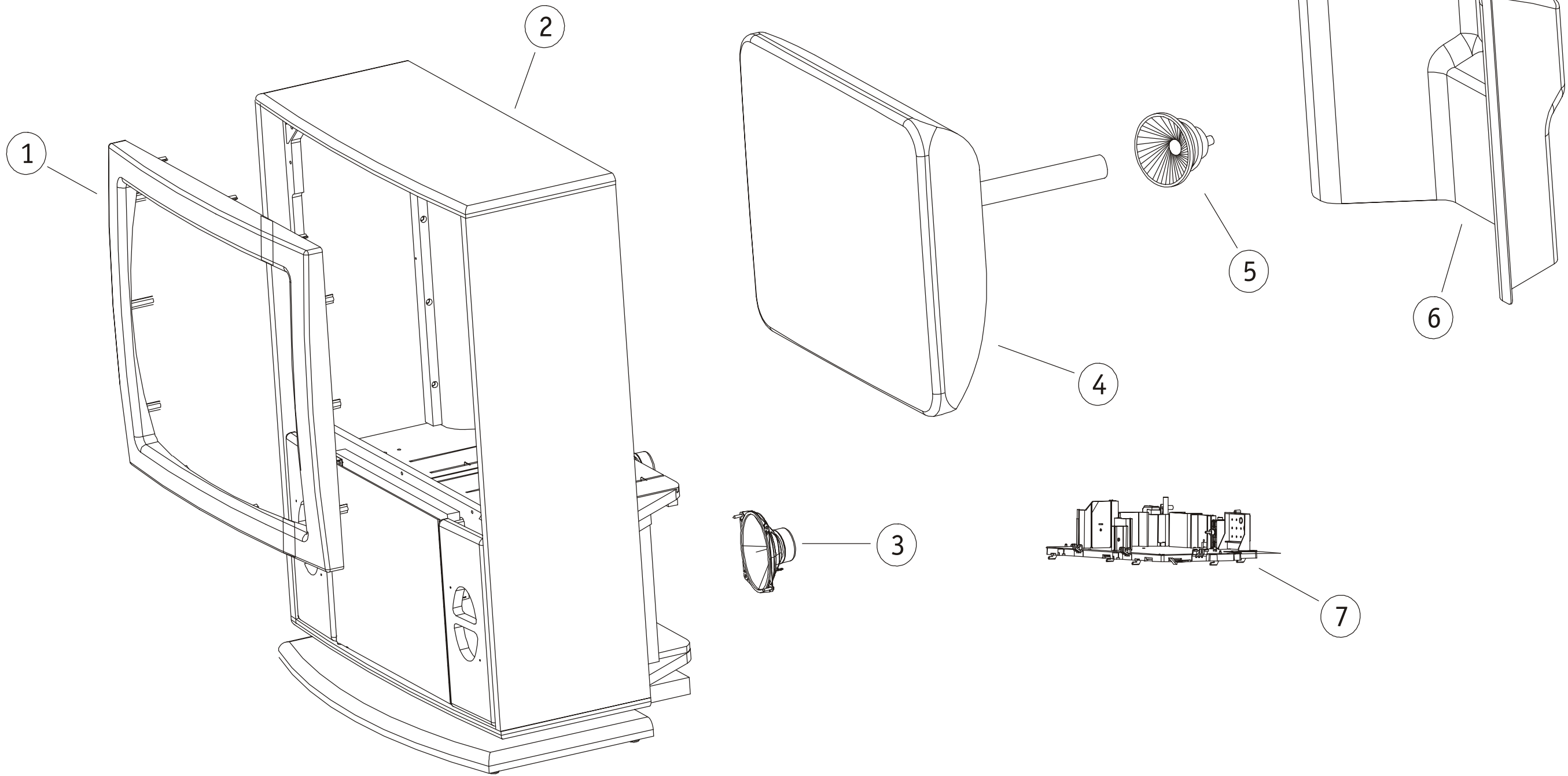
# 25/27V Console Set Exploded View

REF	DESCRIPTION	B25A76R	B27A76R	B27A76R5
1	ESCUTCHEON	057-09067-08	057-09055-42	057-09055-42
2	MAIN CABINET	014-12333	014-12327	014-12327
3	SPEAKER	049-01302-03	049-01334-02	049-01334-02
4	CRT ASSEMBLY	A63AGD01X	A63AGD01X	A63AGD01X
5	YOKE	095-04456-05	095-03797-05	095-03797-05
6	BACK COVER	014-11639-19	014-11639-20	014-11639-20
7	MAIN MODULE	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR	COMPONENT LEVEL REPAIR
8	REMOTE CONTROL	124-00233	124-00233	124-00233

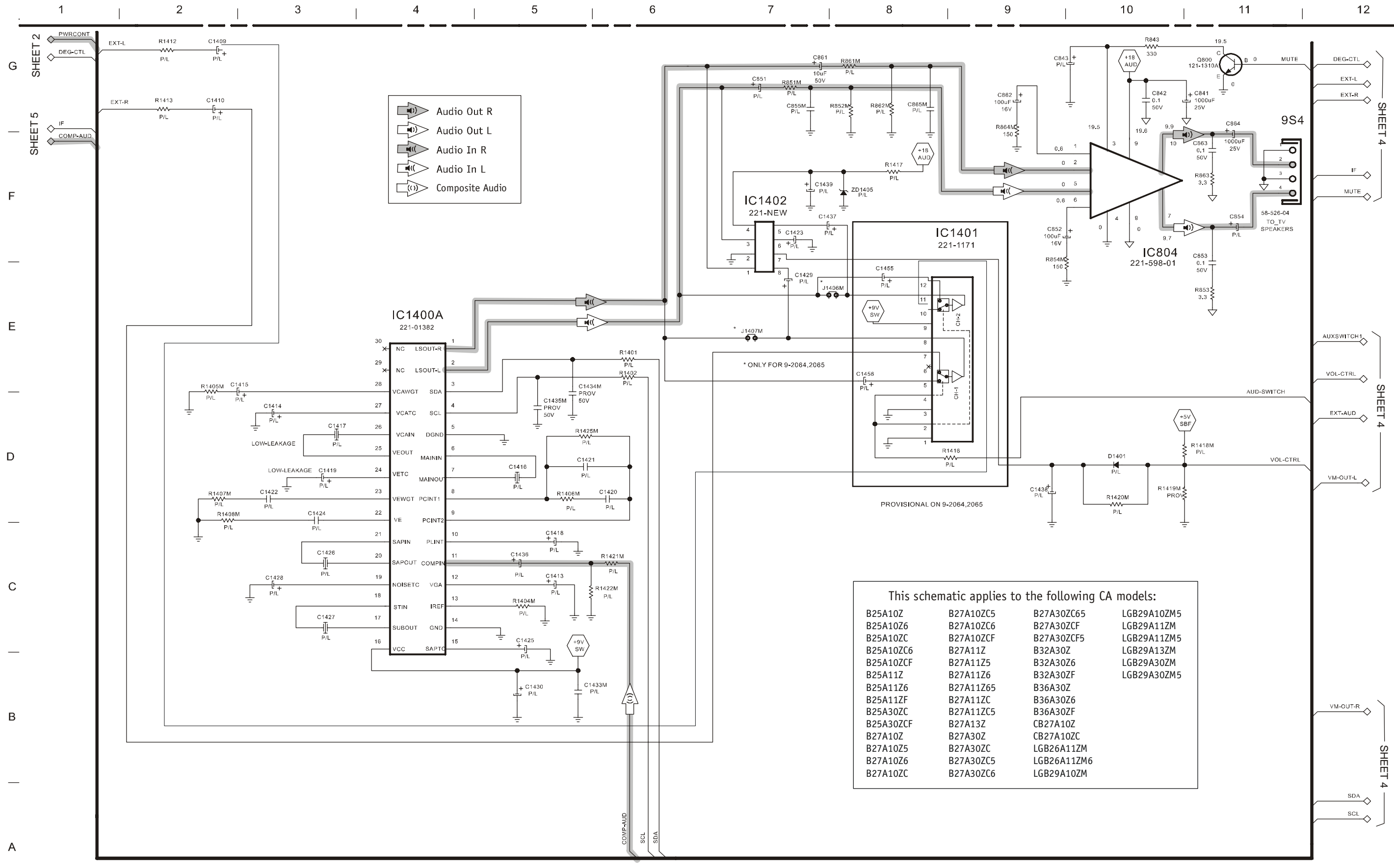
8



MBR3447Z  
124-00233



# Audio Processor Stereo



Audio Out R  
 Audio Out L  
 Audio In R  
 Audio In L  
 Composite Audio

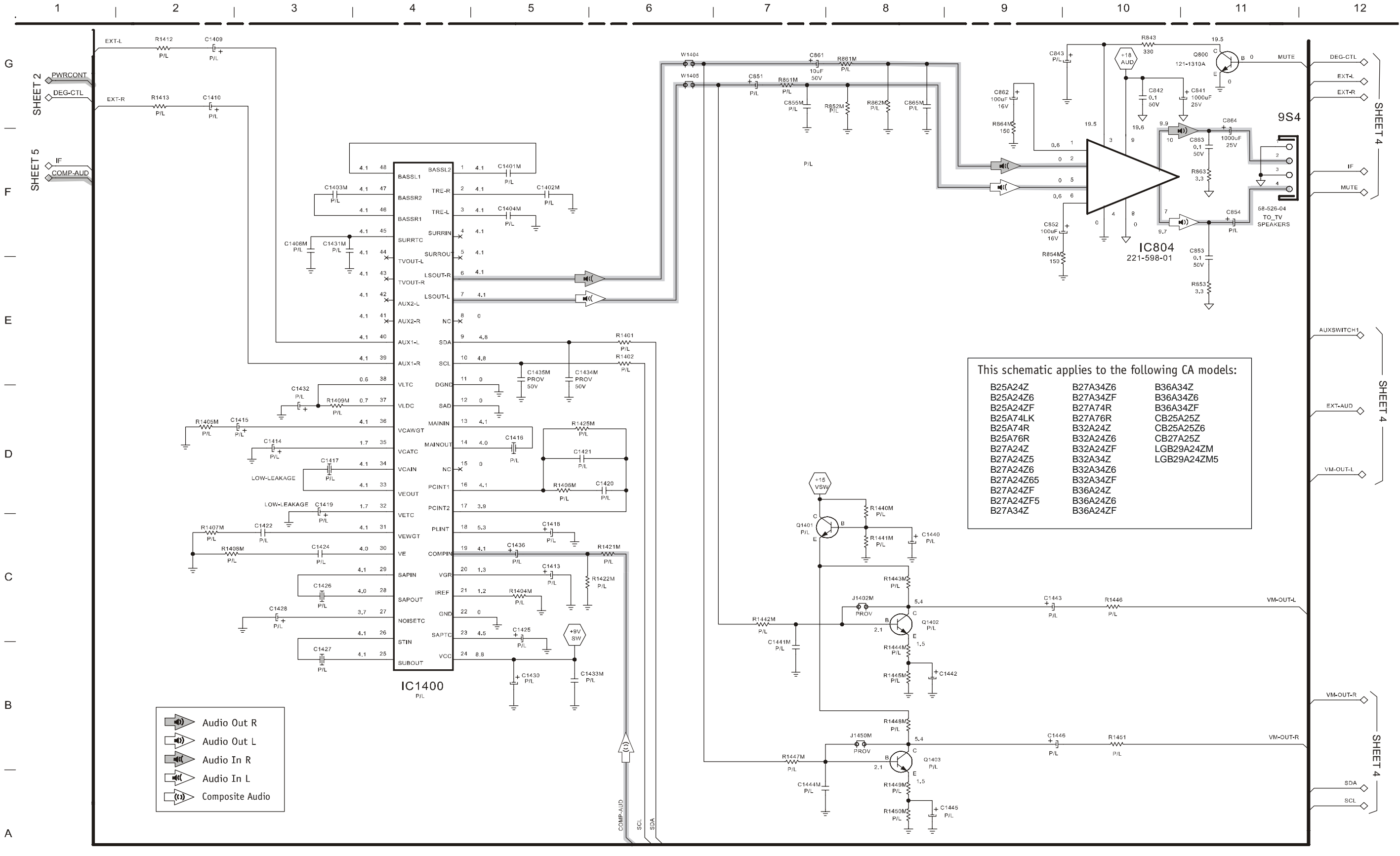
This schematic applies to the following CA models:

B25A10Z	B27A10ZC5	B27A30ZC65	LGB29A10ZM5
B25A10Z6	B27A10ZC6	B27A30ZCF	LGB29A11ZM
B25A10ZC	B27A10ZCF	B27A30ZCF5	LGB29A11ZM5
B25A10ZC6	B27A11Z	B32A30Z	LGB29A13ZM
B25A10ZCF	B27A11Z5	B32A30Z6	LGB29A30ZM
B25A11Z	B27A11Z6	B32A30ZF	LGB29A30ZM5
B25A11Z6	B27A11Z65	B36A30Z	
B25A11ZF	B27A11ZC	B36A30Z6	
B25A30ZC	B27A11ZC5	B36A30ZF	
B25A30ZCF	B27A13Z	CB27A10Z	
B27A10Z	B27A30Z	CB27A10ZC	
B27A10Z5	B27A30ZC	LGB26A11ZM	
B27A10Z6	B27A30ZC5	LGB26A11ZM6	
B27A10ZC	B27A30ZC6	LGB29A10ZM	



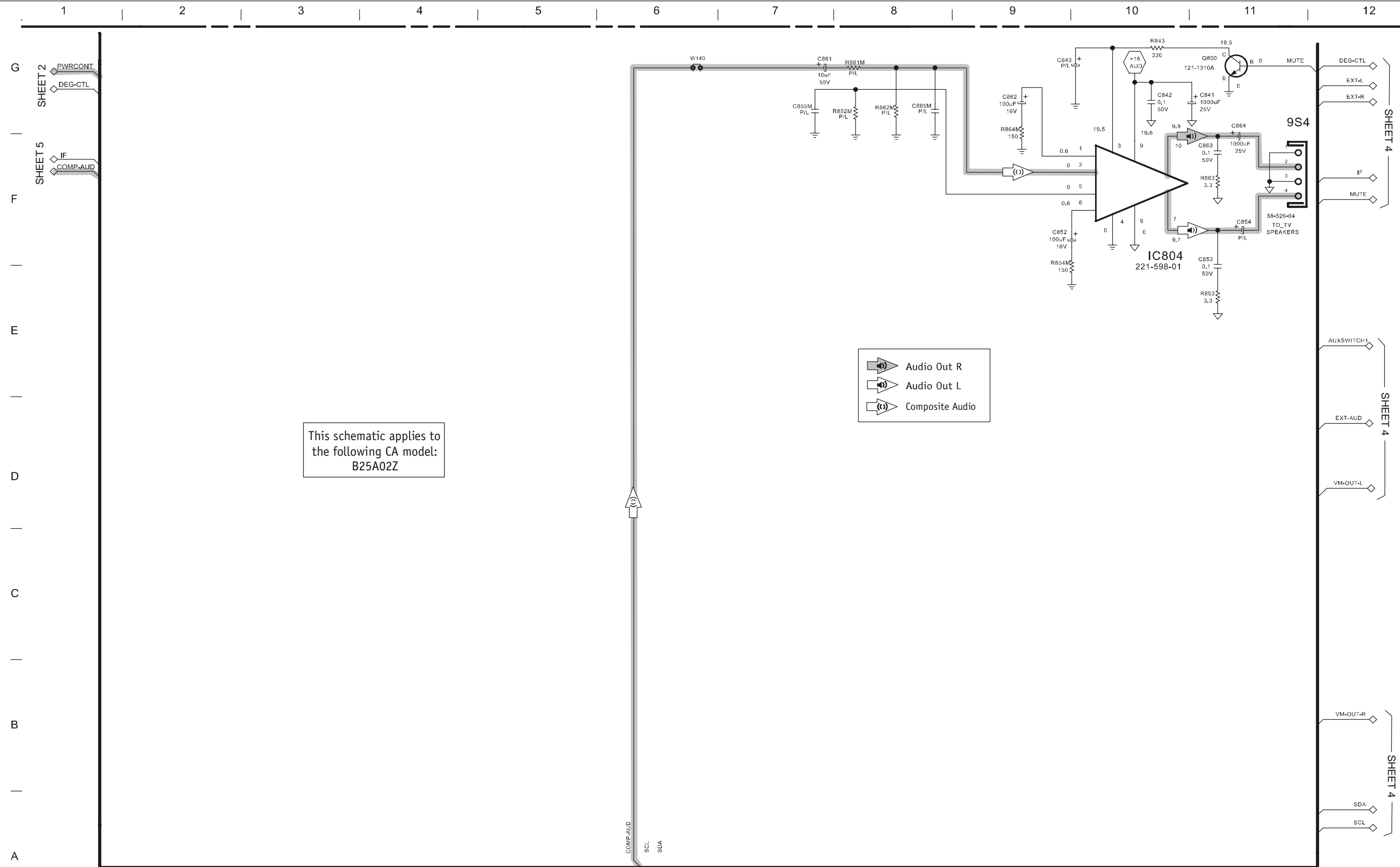
CRITICAL SAFETY COMPONENTS ARE IDENTIFIED BY THE LETTER "X" IN THEIR COMPONENT DESIGNATORS. REPLACE ONLY WITH PART NUMBERS SPECIFIED.

# Audio Processor MTS



CRITICAL SAFETY COMPONENTS ARE IDENTIFIED BY THE LETTER "X" IN THEIR COMPONENT DESIGNATORS. REPLACE ONLY WITH PART NUMBERS SPECIFIED.

# Audio Processor Mono

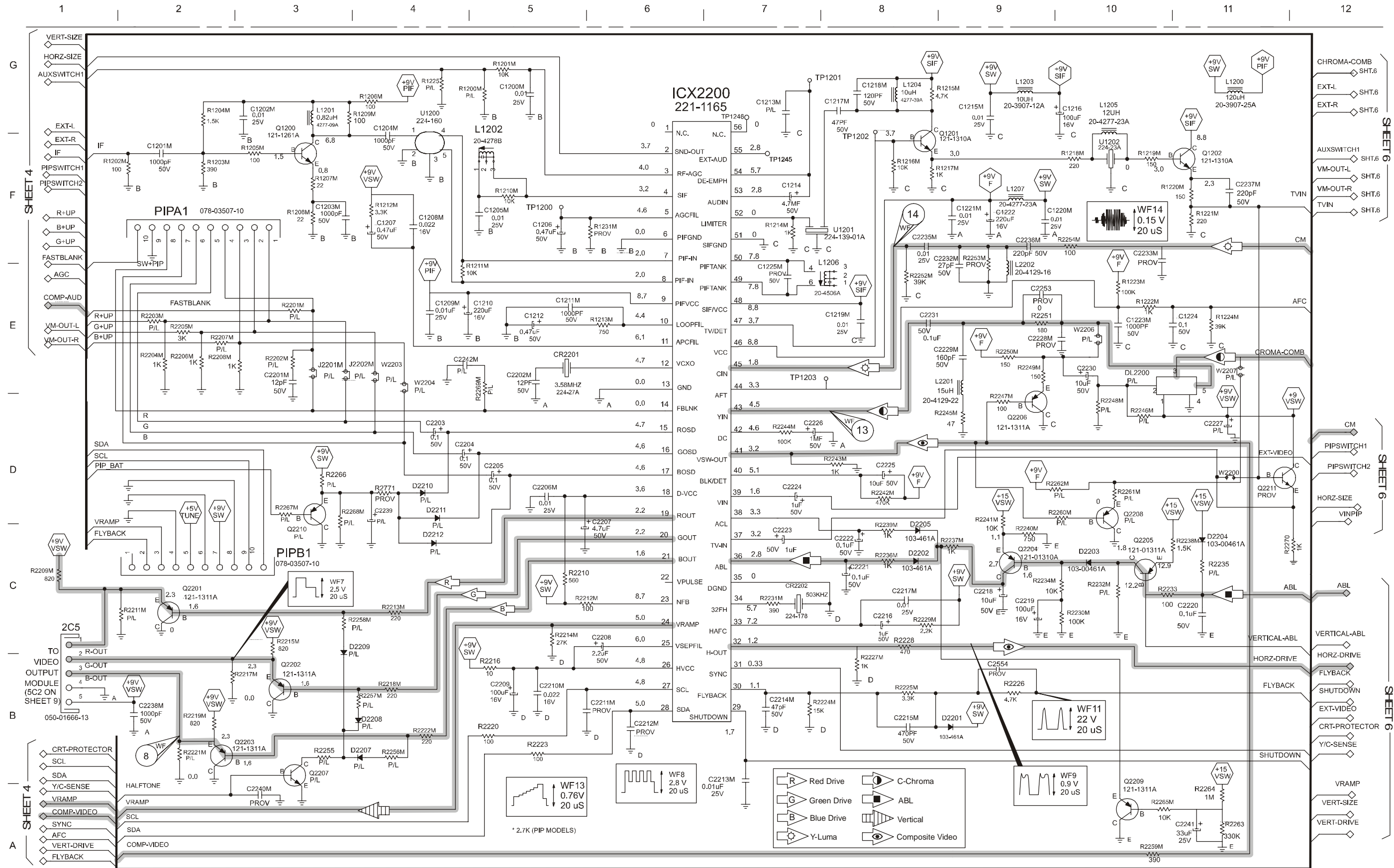


CRITICAL SAFETY COMPONENTS ARE IDENTIFIED BY THE LETTER "X" IN THEIR COMPONENT DESIGNATORS. REPLACE ONLY WITH PART NUMBERS SPECIFIED.





# Video Processor



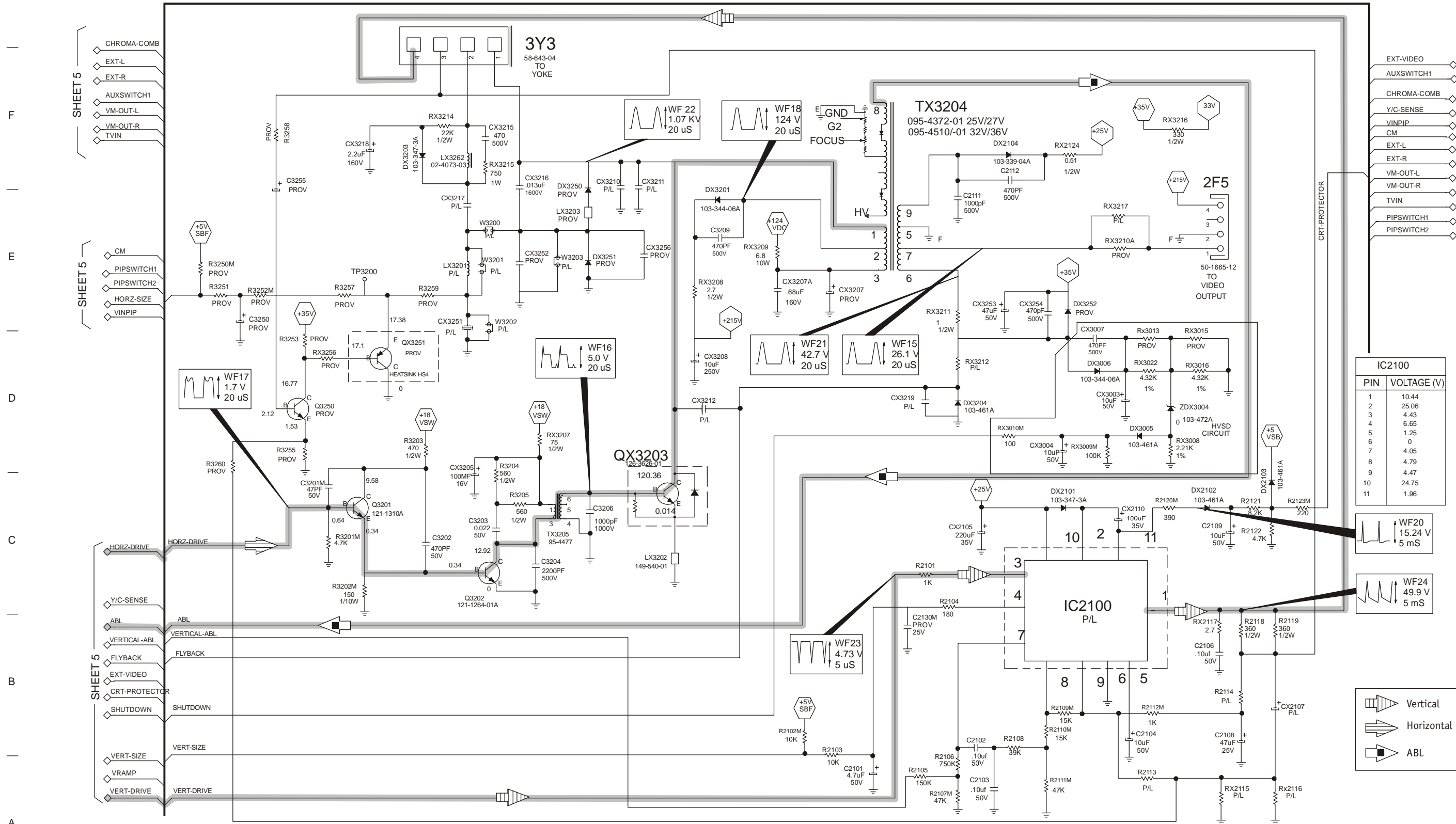
CRITICAL SAFETY COMPONENTS ARE IDENTIFIED BY THE LETTER "X" IN THEIR COMPONENT DESIGNATORS. REPLACE ONLY WITH PART NUMBERS SPECIFIED.

ALL SYMBOLS WITH "M" ON END OF DESIGNATOR INDICATE SURFACE MOUNTED COMPONENT

# Horizontal Vertical Deflection

1 2 3 4 5 6 7 8 9 10 11 12

G

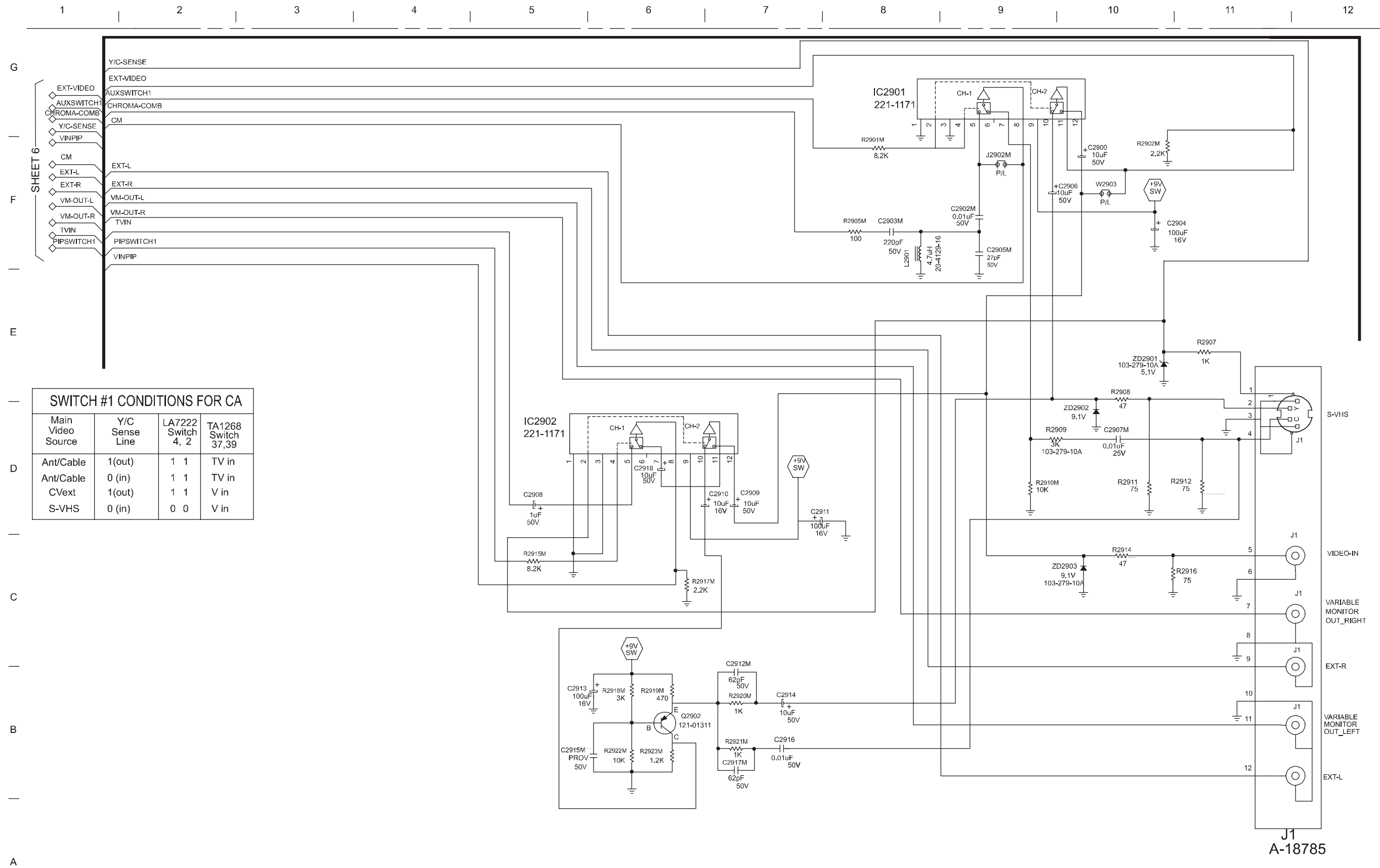


A



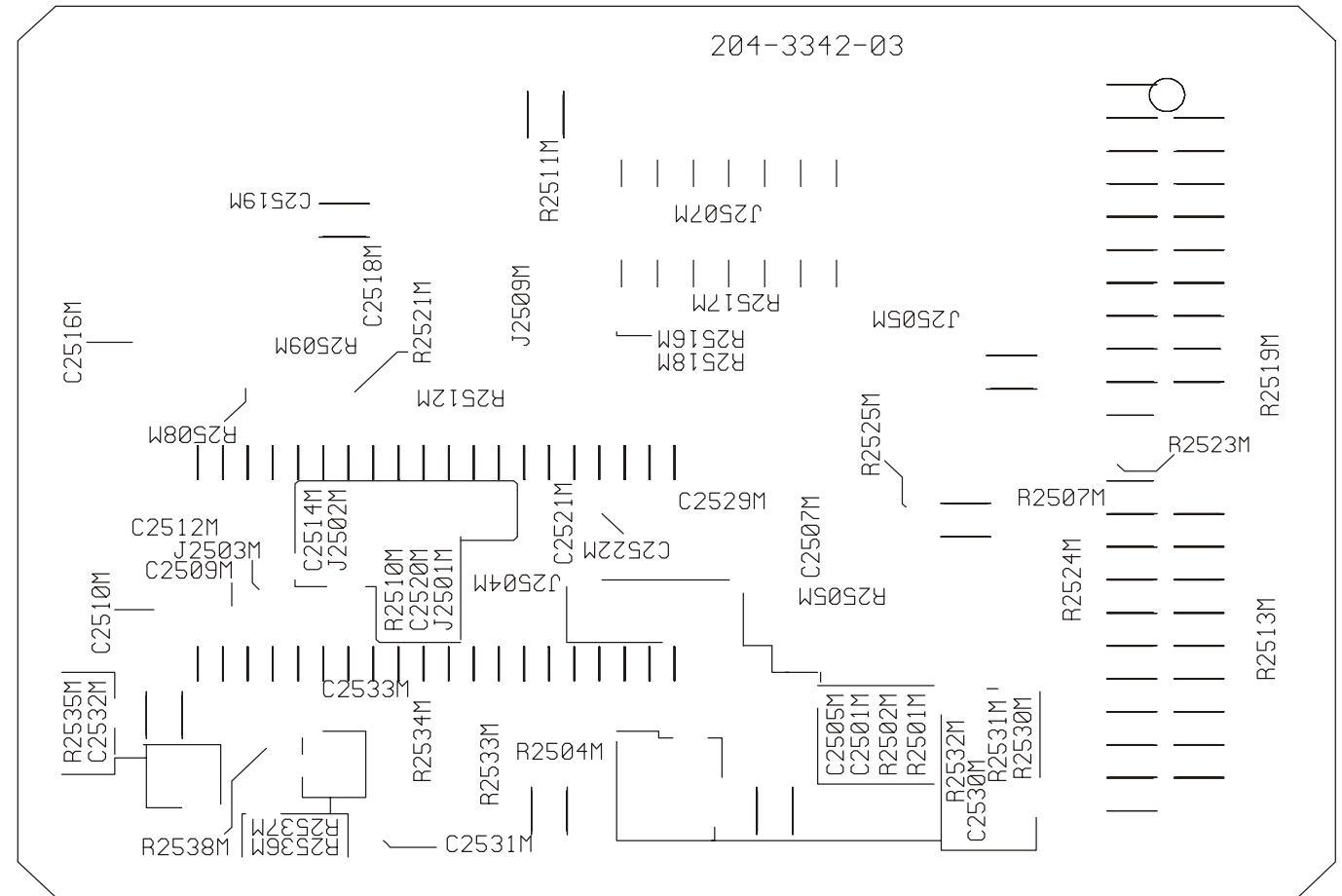
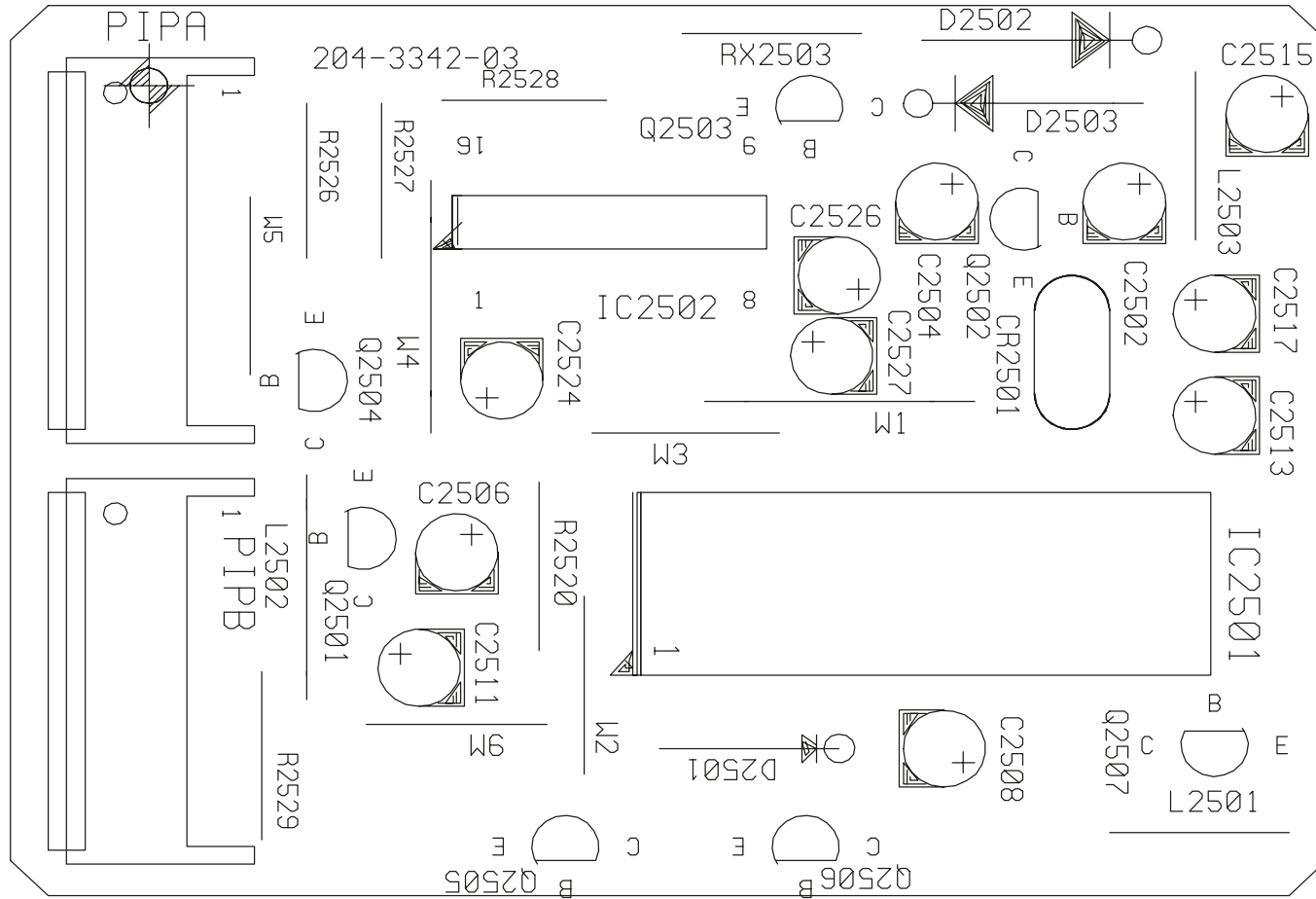
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# Jack and Switch Circuit



CRITICAL SAFETY COMPONENTS ARE IDENTIFIED BY THE LETTER "X" IN THEIR COMPONENT DESIGNATORS. REPLACE ONLY WITH PART NUMBERS SPECIFIED.

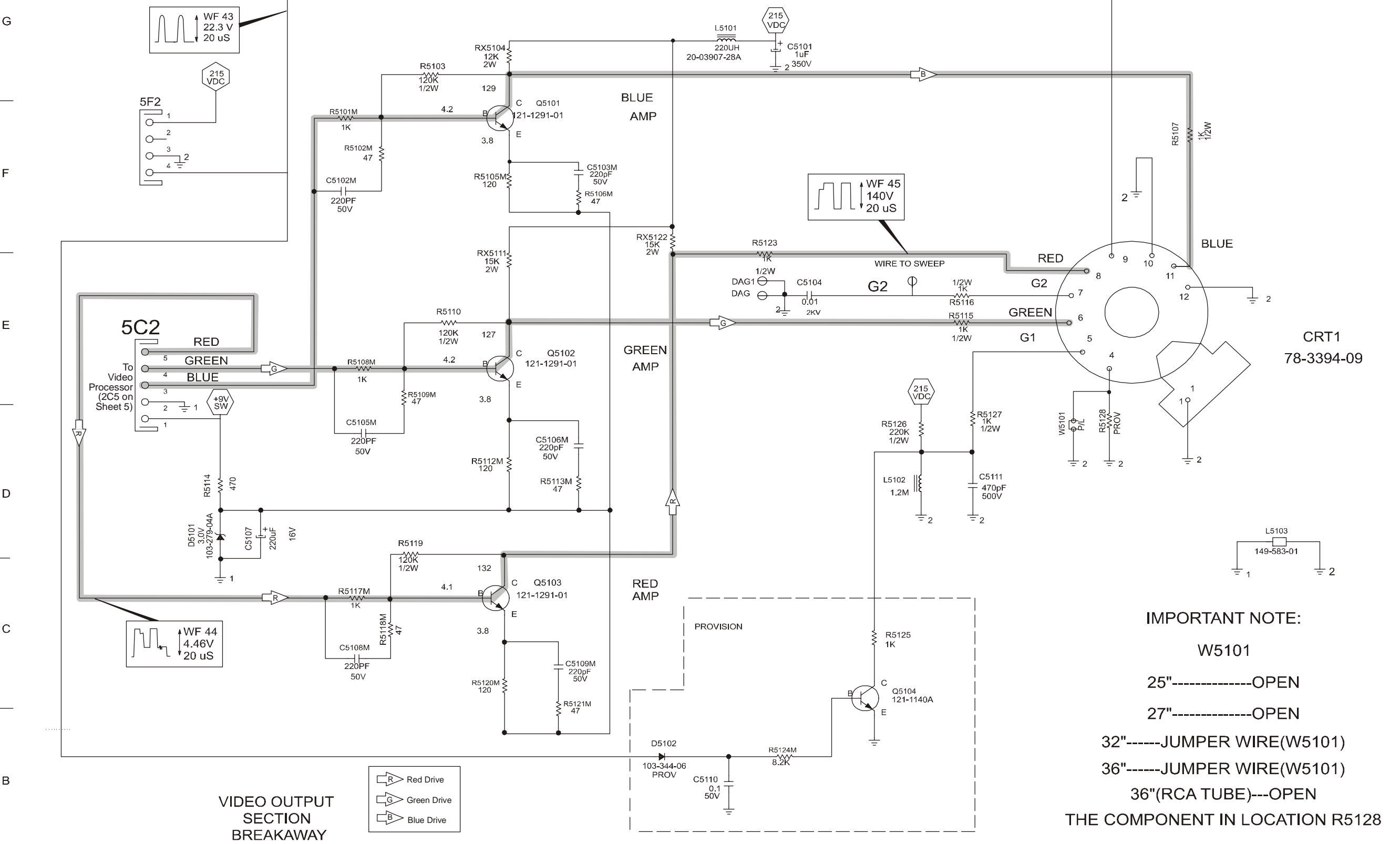
# Picture In Picture



CRITICAL SAFETY COMPONENTS ARE IDENTIFIED BY THE LETTER "X" IN THEIR COMPONENT DESIGNATORS. REPLACE ONLY WITH PART NUMBERS SPECIFIED.

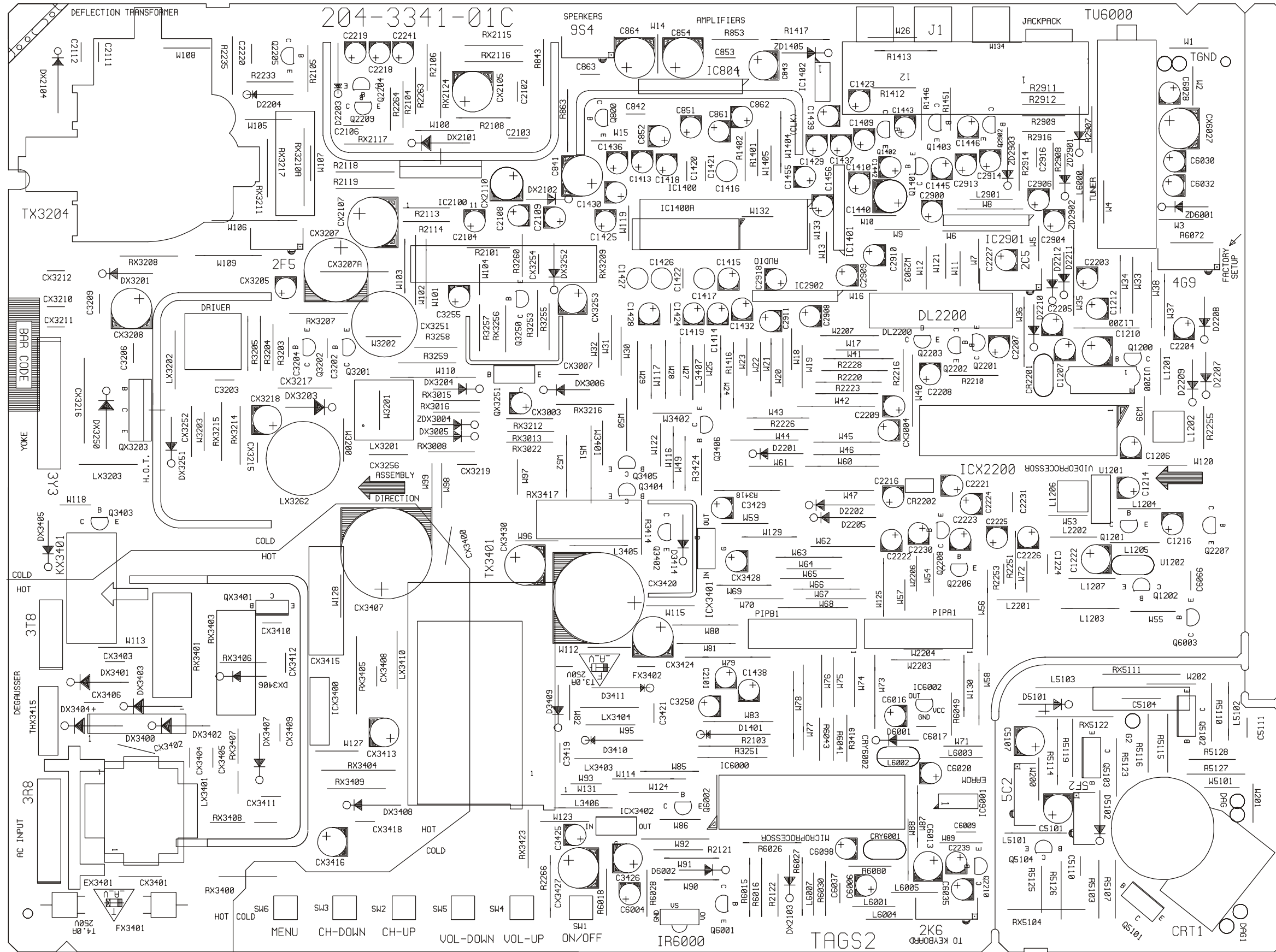
# Video Output

2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11



CRITICAL SAFETY COMPONENTS ARE IDENTIFIED BY THE LETTER "X" IN THEIR COMPONENT DESIGNATORS. REPLACE ONLY WITH PART NUMBERS SPECIFIED.

# PCB Layout



CRITICAL SAFETY COMPONENTS ARE IDENTIFIED BY THE LETTER "X" IN THEIR COMPONENT DESIGNATORS. REPLACE ONLY WITH PART NUMBERS SPECIFIED.

# SMD Layout



CRITICAL SAFETY COMPONENTS ARE IDENTIFIED BY THE LETTER "X" IN THEIR COMPONENT DESIGNATORS. REPLACE ONLY WITH PART NUMBERS SPECIFIED.